

Sequence Listing

<110> Genentech, Inc.
 Ashkenazi, Avi
 Botstein, David
 Desnoyers, Luc
 Eaton, Dan L.
 Ferrara, Napoleone
 Filvaroff, Ellen
 Fong, Sherman
 Gao, Wei-Qiang
 Gerber, Hanspeter
 Gerritsen, Mary E.
 Goddard, A.
 Godowski, Paul J.
 Grimaldi, Christopher J.
 Gurney, Austin L.
 Hillan, Kenneth, J.
 Kljavin, Ivar J.
 Mather, Jennie P.
 Pan, James
 Paoni, Nicholas F.
 Roy, Margaret Ann
 Stewart, Timothy A.
 Tumas, Daniel
 Williams, P. Mickey
 Wood, William, I.

<120> Secreted and Transmembrane Polypeptides and Nucleic
 Acids Encoding the Same

<130> 10466-14

<140> 09/665,350

<141> 2000-09-18

<150> PCT/US00/04414

<151> 2000-02-22

<150> US 60/143,048

<151> 1999-07-07

<150> US 60/143,698

<151> 1999-07-26

<150> US 60/146,222

<151> 1999-07-28

<150> PCT/US99/20594

<151> 1999-09-08

<150> PCT/US99/20944

<151> 1999-09-13

<150> PCT/US99/21090

<151> 1999-09-15

<150> PCT/US99/21547

<151> 1999-09-15

<150> PCT/US99/23089
<151> 1999-10-05

<150> PCT/US99/28214
<151> 1999-11-29

<150> PCT/US99/28313
<151> 1999-11-30

<150> PCT/US99/28564
<151> 1999-12-02

<150> PCT/US99/28565
<151> 1999-12-02

<150> PCT/US99/30095
<151> 1999-12-16

<150> PCT/US99/30911
<151> 1999-12-20

<150> PCT/US99/30999
<151> 1999-12-20
<150> PCT/US00/00219
<151> 2000-01-05

<160> 423

<210> 1
<211> 1825
<212> DNA
<213> Homo Sapien

<400> 1
actgcacctc ggttctatcg attgaattcc ccgggggatcc tctagagatc 50
cctegacctc gacccacgcg tccggggccgg agcagcacgg ccgcaggacc 100
tggagctccg gctgctgtctt cccgcagcgc taccgccaat gcgcctgccg 150
cgccggggccg cgctgggggt cctgccgctt ctgctgctgc tgccgcccgc 200
gccggaggcc gccaaagaagc cgacgccctg ccaccggtgc cgggggctgg 250
tggacaagtt taaccagggg atggtggaca ccgcaaagaa gaactttggc 300
ggcgggaaca cggcttggga ggaaaagacg ctgtccaagt acgagtccag 350
cgagattcgc ctgctggaga tcctggaggg gctgtgagag agcagcgact 400
tcgaatgcaa tcagatgcta gaggcgcagg aggagcacct ggaggcctgg 450
tggctgcagc tgaagagcga atatcctgac ttattcgagt ggttttgtgt 500
gaagacactg aaagtgtgct gctctccagg aacctacggt cccgactgtc 550
tcgcatgcca gggcggtacc cagaggccct gcagcgggaa tggccactgc 600

agcggagatg ggagcagaca gggcgacggg tcctgccggt gccacatggg 650
 gtaccagggc ccgctgtgca ctgactgcat ggacggctac ttcagctcgc 700
 tccggaacga gacccacagc atctgcacag cctgtgacga gtcctgcaag 750
 acgtgctcgg gcctgaccaa cagagactgc ggcgagtgtg aagtgggctg 800
 ggtgctggac gagggcgctt gtgtggatgt ggacgagtgt gcggccgagc 850
 cgctccctg cagcgtcgcg cagttctgta agaacgcaa cggctcctac 900
 acgtgcgaag agtgtgactc cagctgtgtg ggctgcacag gggaaggccc 950
 aggaaactgt aaagagtgtg tctctggcta cgcgagggag cacggacagt 1000
 gtgcagatgt ggacgagtgc tcactagcag aaaaaacctg tgtgaggaaa 1050
 aacgaaaact gctacaatac tccagggagc tacgtctgtg tgtgtcctga 1100
 cggcttcgaa gaaacggaag atgcctgtgt gccgccggca gaggctgaag 1150
 ccacagaagg agaaagcccg acacagctgc cctcccgcga agacctgtaa 1200
 tgtgccggac ttacccttta aattattcag aaggatgtcc cgtggaaaat 1250
 gtggccctga ggatgccgtc tcctgcagtg gacagcggcg gggagaggct 1300
 gcctgtcttc taacggttga ttctcatttg tcccttaaac agctgcattt 1350
 cttggttgtt cttaaacaga cttgtatatt ttgatacagt tctttgtaat 1400
 aaaattgacc attgtaggta atcaggagga aaaaaaaaaa aaaaaaaaaa 1450
 aaagggcggc cgcgactcta gagtcgacct gcagaagctt ggccgccatg 1500
 gcccaacttg tttattgcag cttataatgg ttacaaataa agcaatagca 1550
 tcacaaattt cacaaataaa gcattttttt cactgcattc tagttgtggt 1600
 ttgtccaaac tcatcaatgt atcttatcat gtctggatcg ggaattaatt 1650
 cggcgcagca ccatggcctg aaataacctc tgaaagagga acttggttag 1700
 gtaccttctg aggcggaaag aaccagctgt ggaatgtgtg tcagttaggg 1750
 tgtggaaagt ccccgaggct cccagcaggc agaagtatgc aagcatgcat 1800
 ctcaattagt cagcaacca gtttt 1825

<210> 2

<211> 353

<212> PRT

<213> Homo Sapien

<400> 2

Met	Arg	Leu	Pro	Arg	Arg	Ala	Ala	Leu	Gly	Leu	Leu	Pro	Leu	Leu
1					5				10				15	

Leu	Leu	Leu	Pro	Pro	Ala	Pro	Glu	Ala	Ala	Lys	Lys	Pro	Thr	Pro		20	25	30
Cys	His	Arg	Cys	Arg	Gly	Leu	Val	Asp	Lys	Phe	Asn	Gln	Gly	Met		35	40	45
Val	Asp	Thr	Ala	Lys	Lys	Asn	Phe	Gly	Gly	Gly	Asn	Thr	Ala	Trp		50	55	60
Glu	Glu	Lys	Thr	Leu	Ser	Lys	Tyr	Glu	Ser	Ser	Glu	Ile	Arg	Leu		65	70	75
Leu	Glu	Ile	Leu	Glu	Gly	Leu	Cys	Glu	Ser	Ser	Asp	Phe	Glu	Cys		80	85	90
Asn	Gln	Met	Leu	Glu	Ala	Gln	Glu	Glu	His	Leu	Glu	Ala	Trp	Trp		95	100	105
Leu	Gln	Leu	Lys	Ser	Glu	Tyr	Pro	Asp	Leu	Phe	Glu	Trp	Phe	Cys		110	115	120
Val	Lys	Thr	Leu	Lys	Val	Cys	Cys	Ser	Pro	Gly	Thr	Tyr	Gly	Pro		125	130	135
Asp	Cys	Leu	Ala	Cys	Gln	Gly	Gly	Ser	Gln	Arg	Pro	Cys	Ser	Gly		140	145	150
Asn	Gly	His	Cys	Ser	Gly	Asp	Gly	Ser	Arg	Gln	Gly	Asp	Gly	Ser		155	160	165
Cys	Arg	Cys	His	Met	Gly	Tyr	Gln	Gly	Pro	Leu	Cys	Thr	Asp	Cys		170	175	180
Met	Asp	Gly	Tyr	Phe	Ser	Ser	Leu	Arg	Asn	Glu	Thr	His	Ser	Ile		185	190	195
Cys	Thr	Ala	Cys	Asp	Glu	Ser	Cys	Lys	Thr	Cys	Ser	Gly	Leu	Thr		200	205	210
Asn	Arg	Asp	Cys	Gly	Glu	Cys	Glu	Val	Gly	Trp	Val	Leu	Asp	Glu		215	220	225
Gly	Ala	Cys	Val	Asp	Val	Asp	Glu	Cys	Ala	Ala	Glu	Pro	Pro	Pro		230	235	240
Cys	Ser	Ala	Ala	Gln	Phe	Cys	Lys	Asn	Ala	Asn	Gly	Ser	Tyr	Thr		245	250	255
Cys	Glu	Glu	Cys	Asp	Ser	Ser	Cys	Val	Gly	Cys	Thr	Gly	Glu	Gly		260	265	270
Pro	Gly	Asn	Cys	Lys	Glu	Cys	Ile	Ser	Gly	Tyr	Ala	Arg	Glu	His		275	280	285
Gly	Gln	Cys	Ala	Asp	Val	Asp	Glu	Cys	Ser	Leu	Ala	Glu	Lys	Thr		290	295	300
Cys	Val	Arg	Lys	Asn	Glu	Asn	Cys	Tyr	Asn	Thr	Pro	Gly	Ser	Tyr		305	310	315

Val Cys Val Cys Pro Asp Gly Phe Glu Glu Thr Glu Asp Ala Cys
 320 325 330

Val Pro Pro Ala Glu Ala Glu Ala Thr Glu Gly Glu Ser Pro Thr
 335 340 345

Gln Leu Pro Ser Arg Glu Asp Leu
 350

<210> 3

<211> 2206

<212> DNA

<213> Homo Sapien

<400> 3

cagggtccaac tgcacctcgg ttctatcgat tgaattcccc ggggatcctc 50
 tagagatccc tcgacctcga cccacgcgtc cgccaggccg ggaggcgacg 100
 cgcccagccg tctaaacggg aacagccctg gctgagggag ctgcagcgca 150
 gcagagtatc tgacggcgcc aggttgcgta ggtgcggcac gaggagtttt 200
 cccggcagcg aggaggtcct gagcagcatg gcccgaggga gcgccttccc 250
 tgccgccgcg ctctggctct ggagcatcct cctgtgcctg ctggcactgc 300
 gggcgagggc cgggccgccg caggaggaga gcctgtacct atggatcgat 350
 gctcaccagg caagagtact cataggattt gaagaagata tcctgattgt 400
 ttcagagggg aaaatggcac cttttacaca tgatttcaga aaagcgcaac 450
 agagaatgcc agctattcct gtcaatatcc attccatgaa ttttacctgg 500
 caagctgcag ggcaggcaga atacttctat gaattcctgt ccttgcgctc 550
 cctggataaa ggcatcatgg cagatccaac cgtcaatgtc cctctgctgg 600
 gaacagtgcc tcacaaggca tcagttgttc aagttggttt cccatgtcct 650
 ggaaaacagg atgggggtggc agcatttgaa gtggatgtga ttgttatgaa 700
 ttctgaaggc aacaccattc tccaaacacc tcaaaatgct atcttcttta 750
 aaacatgtca acaagctgag tgcccaggcg ggtgccgaaa tggaggcttt 800
 tgtaatgaaa gacgcacatg cgagtgtcct gatggggttc acggacctca 850
 ctgtgagaaa gccctttgta cccacgatg tatgaatggg ggactttgtg 900
 tgactcctgg tttctgcac tgcccacctg gattctatgg agtgaactgt 950
 gacaaagcaa actgctcaac cacctgcttt aatggaggga cctgtttcta 1000
 ccctggaaaa tgtatttgcc ctccaggact agagggagag cagtgtgaaa 1050
 tcagcaaata ccacaaccc tgtcgaaatg gaggtaaatg cattggtaaa 1100
 agcaaatagt agtgttccaa aggttaccag ggagacctct gttcaaagcc 1150

tgtctgcgag cctggctgtg gtgcacatgg aacctgccat gaacccaaca 1200
 aatgccaatg tcaagaaggt tggcatggaa gacactgcaa taaaaggtag 1250
 gaagccagcc tcatacatgc cctgaggcca gcaggcgccc agctcaggca 1300
 gcacacgcct tcacttaaaa aggccgagga gcggcgggat ccacctgaat 1350
 ccaattacat ctggtgaact ccgacatctg aaacgtttta agttacacca 1400
 agttcatagc ctttgtaaac ctttcatgtg ttgaatgttc aaataatgtt 1450
 cattacactt aagaatactg gcctgaatth tattagcttc attataaatc 1500
 actgagctga tatttactct tccttttaag ttttctaagt acgtctgtag 1550
 catgatggta tagattttct tgtttcagtg ctttgggaca gattttatat 1600
 tatgtcaatt gatcagggtta aaattttcag tgtgtagttg gcagatatth 1650
 tcaaaattac aatgcattta tgggtgtctgg gggcagggga acatcagaaa 1700
 gggttaaattg ggcaaaaatg cgtaagtcac aagaatttg atggtgcagt 1750
 taatgttgaa gttacagcat ttcagattth attgtcagat atttagatgt 1800
 ttgttacatt tttaaaaatt gctcttaatt tttaaaactct caatacaata 1850
 tattttgacc ttaccattat tccagagatt cagtattaaa aaaaaaaaaa 1900
 ttacactgtg gtagtggcat ttaaacaata taatatattc taaacacaat 1950
 gaaataggga atataatgta tgaactttth gcattggctt gaagcaatat 2000
 aatatattgt aaacaaaaca cagctcttac ctaataaaca ttttatactg 2050
 tttgtatgta taaaataaag gtgctgctth agtttttttg aaaaaaaaaa 2100
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa gggcgccgc gactctagag 2150
 tcgacctgca gaagcttggc cgccatggcc caacttgth attgcagctt 2200
 ataatg 2206

<210> 4

<211> 379

<212> PRT

<213> Homo Sapien

<400> 4

Met	Ala	Arg	Arg	Ser	Ala	Phe	Pro	Ala	Ala	Ala	Leu	Trp	Leu	Trp
1				5					10				15	

Ser	Ile	Leu	Leu	Cys	Leu	Leu	Ala	Leu	Arg	Ala	Glu	Ala	Gly	Pro
				20					25				30	

Pro	Gln	Glu	Glu	Ser	Leu	Tyr	Leu	Trp	Ile	Asp	Ala	His	Gln	Ala
				35					40				45	

Arg	Val	Leu	Ile	Gly	Phe	Glu	Glu	Asp	Ile	Leu	Ile	Val	Ser	Glu		50	55	60
Gly	Lys	Met	Ala	Pro	Phe	Thr	His	Asp	Phe	Arg	Lys	Ala	Gln	Gln		65	70	75
Arg	Met	Pro	Ala	Ile	Pro	Val	Asn	Ile	His	Ser	Met	Asn	Phe	Thr		80	85	90
Trp	Gln	Ala	Ala	Gly	Gln	Ala	Glu	Tyr	Phe	Tyr	Glu	Phe	Leu	Ser		95	100	105
Leu	Arg	Ser	Leu	Asp	Lys	Gly	Ile	Met	Ala	Asp	Pro	Thr	Val	Asn		110	115	120
Val	Pro	Leu	Leu	Gly	Thr	Val	Pro	His	Lys	Ala	Ser	Val	Val	Gln		125	130	135
Val	Gly	Phe	Pro	Cys	Leu	Gly	Lys	Gln	Asp	Gly	Val	Ala	Ala	Phe		140	145	150
Glu	Val	Asp	Val	Ile	Val	Met	Asn	Ser	Glu	Gly	Asn	Thr	Ile	Leu		155	160	165
Gln	Thr	Pro	Gln	Asn	Ala	Ile	Phe	Phe	Lys	Thr	Cys	Gln	Gln	Ala		170	175	180
Glu	Cys	Pro	Gly	Gly	Cys	Arg	Asn	Gly	Gly	Phe	Cys	Asn	Glu	Arg		185	190	195
Arg	Ile	Cys	Glu	Cys	Pro	Asp	Gly	Phe	His	Gly	Pro	His	Cys	Glu		200	205	210
Lys	Ala	Leu	Cys	Thr	Pro	Arg	Cys	Met	Asn	Gly	Gly	Leu	Cys	Val		215	220	225
Thr	Pro	Gly	Phe	Cys	Ile	Cys	Pro	Pro	Gly	Phe	Tyr	Gly	Val	Asn		230	235	240
Cys	Asp	Lys	Ala	Asn	Cys	Ser	Thr	Thr	Cys	Phe	Asn	Gly	Gly	Thr		245	250	255
Cys	Phe	Tyr	Pro	Gly	Lys	Cys	Ile	Cys	Pro	Pro	Gly	Leu	Glu	Gly		260	265	270
Glu	Gln	Cys	Glu	Ile	Ser	Lys	Cys	Pro	Gln	Pro	Cys	Arg	Asn	Gly		275	280	285
Gly	Lys	Cys	Ile	Gly	Lys	Ser	Lys	Cys	Lys	Cys	Ser	Lys	Gly	Tyr		290	295	300
Gln	Gly	Asp	Leu	Cys	Ser	Lys	Pro	Val	Cys	Glu	Pro	Gly	Cys	Gly		305	310	315
Ala	His	Gly	Thr	Cys	His	Glu	Pro	Asn	Lys	Cys	Gln	Cys	Gln	Glu		320	325	330
Gly	Trp	His	Gly	Arg	His	Cys	Asn	Lys	Arg	Tyr	Glu	Ala	Ser	Leu		335	340	345

Ile His Ala Leu Arg Pro Ala Gly Ala Gln Leu Arg Gln His Thr
350 355 360

Pro Ser Leu Lys Lys Ala Glu Glu Arg Arg Asp Pro Pro Glu Ser
365 370 375

Asn Tyr Ile Trp

<210> 5

<211> 45

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Oligonucleotide Probe

<400> 5

agggagcacg gacagtgtgc agatgtggac gagtgtcac tagca 45

<210> 6

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Oligonucleotide Probe

<400> 6

agagtgtatc tctggctacg c 21

<210> 7

<211> 22

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Oligonucleotide Probe

<400> 7

taagtccggc acattacagg tc 22

<210> 8

<211> 49

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Oligonucleotide Probe

<400> 8

cccacgatgt atgaatggtg gactttgtgt gactcctggt ttctgcatc 49

<210> 9

<211> 22

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Oligonucleotide Probe

<400> 9

aaagacgcat ctgcgagtgt cc 22

<210> 10

<211> 23

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Oligonucleotide Probe

<400> 10

tgctgatttc aactgctct ccc 23

<210> 11

<211> 2197

<212> DNA

<213> Homo Sapien

<400> 11

cggacgcgtg ggcgtccggc ggtcgcagag ccaggaggcg gaggcgcgcg 50
ggccagcctg ggccccagcc cacaccttca ccaggggccca ggagccacca 100
tgtggcgatg tccactgggg ctactgctgt tgctgccgct ggctggccac 150
ttggctctgg gtgcccagca gggtcgtggg cgccgggagc tagcaccggg 200
tctgcacctg cggggcatcc gggacgcggg aggcgggtac tgccaggagc 250
aggacctgtg ctgccgcggc cgtgccgacg actgtgccct gccctacctg 300
ggcgccatct gttactgtga cctcttctgc aaccgcacgg tctccgactg 350
ctgccctgac ttctgggact tctgcctcgg cgtgccaccc ccttttcccc 400
cgatccaagg atgtatgcat ggaggtcgta tctatccagt cttgggaacg 450
tactgggaca actgtaaccg ttgcacctgc caggagaaca ggcagtggca 500
tggtggatcc agacatgatc aaagccatca accagggcaa ctatggctgg 550
caggctggga accacagcgc cttctggggc atgacctgg atgagggcat 600
tcgctaccgc ctgggcacca tccgccatc ttctcggtc atgaacatgc 650
atgaaattta tacagtgtg aaccagggg aggtgcttcc cacagccttc 700
gaggcctctg agaagtggcc caacctgatt catgagcctc ttgaccaagg 750
caactgtgca ggctcctggg ccttctccac agcagctgtg gcatccgatc 800
gtgtctcaat ccattctctg ggacacatga cgctgtcct gtgcgccag 850
aacctgctgt cttgtgacac ccaccagcag cagggtgcc gcggtgggcg 900
tctcgatggg gcctgggtgt tcctgcgtcg ccgaggggtg gtgtctgacc 950

actgctaccc cttctcgggc cgtgaacgag acgaggctgg ccctgcgccc 1000
 ccctgtatga tgcacagccg agccatgggt cggggcaagc gccaggccac 1050
 tgcccactgc cccaacagct atgttaataa caatgacatc taccaggtca 1100
 ctctgttcta ccgcctcggc tccaacgaca aggagatcat gaaggagctg 1150
 atggagaatg gccctgtcca agccctcatg gaggtgcatg aggacttctt 1200
 cctatacaag ggaggcatct acagccacac gccagtgagc cttgggaggc 1250
 cagagagata ccgccggcat gggacccact cagtcaagat cacaggatgg 1300
 ggagaggaga cgctgccaga tggaaggacg ctcaaatact ggactgcggc 1350
 caactcctgg ggcccagcct ggggcgagag gggccacttc cgcctcgtgc 1400
 gcggcgtcaa tgagtgcgac atcgagagct tcgtgctggg cgtctggggc 1450
 cgcgtgggca tggaggacat gggatcatcac tgaggctgcg ggcaccacgc 1500
 ggggtccggc ctgggatcca ggctaagggc cggcggaaga ggccccaatg 1550
 gggcggtgac cccagcctcg cccgacagag cccggggcgc aggcggggcgc 1600
 cagggcgcta atccccggcg gggttccgct gacgcagcgc cccgcctggg 1650
 agccgcgggc aggcgagact ggcggagccc ccagacctcc cagtggggac 1700
 ggggcagggc ctggcctggg aagagcacag ctgcagatcc caggcctctg 1750
 gcgccccac tcaagactac caaagccagg acacctcaag tctccagccc 1800
 caatacccca cccaatccc gtattctttt tttttttttt ttagacaggg 1850
 tcttgcctcg ttgccaggt tggagtgcag tggcccatca gggctcactg 1900
 taacctccga ctctggggt caagtgacct tcccacctca gcctctcaag 1950
 tagctgggac tacaggtgca ccaccacacc tggctaattt ttgtattttt 2000
 tgtaaagagg ggggtctcac tgtgttgccc aggctgggtt cgaactcctg 2050
 ggctcaagcg gtccacctgc ctccgcctcc caaagtgctg ggattgcagg 2100
 catgagccac tgcaccagc cctgtattct tattcttcag atatttattt 2150
 ttctttttcac tgttttaaaa taaaacaaa gtattgataa aaaaaaa 2197

<210> 12

<211> 164

<212> PRT

<213> Homo Sapien

<400> 12

Met	Trp	Arg	Cys	Pro	Leu	Gly	Leu	Leu	Leu	Leu	Pro	Leu	Ala
1					5				10				15

Gly	His	Leu	Ala	Leu	Gly	Ala	Gln	Gln	Gly	Arg	Gly	Arg	Arg	Glu	
				20					25					30	
Leu	Ala	Pro	Gly	Leu	His	Leu	Arg	Gly	Ile	Arg	Asp	Ala	Gly	Gly	
				35					40					45	
Arg	Tyr	Cys	Gln	Glu	Gln	Asp	Leu	Cys	Cys	Arg	Gly	Arg	Ala	Asp	
				50					55					60	
Asp	Cys	Ala	Leu	Pro	Tyr	Leu	Gly	Ala	Ile	Cys	Tyr	Cys	Asp	Leu	
				65					70					75	
Phe	Cys	Asn	Arg	Thr	Val	Ser	Asp	Cys	Cys	Pro	Asp	Phe	Trp	Asp	
				80					85					90	
Phe	Cys	Leu	Gly	Val	Pro	Pro	Pro	Phe	Pro	Pro	Ile	Gln	Gly	Cys	
				95					100					105	
Met	His	Gly	Gly	Arg	Ile	Tyr	Pro	Val	Leu	Gly	Thr	Tyr	Trp	Asp	
				110					115					120	
Asn	Cys	Asn	Arg	Cys	Thr	Cys	Gln	Glu	Asn	Arg	Gln	Trp	His	Gly	
				125					130					135	
Gly	Ser	Arg	His	Asp	Gln	Ser	His	Gln	Pro	Gly	Gln	Leu	Trp	Leu	
				140					145					150	
Ala	Gly	Trp	Glu	Pro	Gln	Arg	Leu	Leu	Gly	His	Asp	Pro	Gly		
				155					160						

<210> 13

<211> 533

<212> DNA

<213> Homo Sapien

<220>

<221> unsure

<222> 33, 37, 80, 94, 144, 188

<223> unknown base

<400> 13

```

aggctccttg gccctttttc cacagcaagc ttntgcnatc ccgattcggt 50
gtctcaaata caattctctt gggacacatn acgcctgtcc tttngcccca 100
gaacctgctg tcttgtagac ccaccagcag cagggctgcc gcgntgggcg 150
tctcgatggt gcctgggtgt tctgctgctg ccgagggntg gtgtctgacc 200
actgctaccc cttctcgggc cgtgaacgag acgaggtgtg ccctgcgccc 250
ccctgtatga tgcacagccg agccatgggt cggggcaagc gccaggccac 300
tgcccactgc cccaacagct atgttaataa caatgacatc taccaggtca 350
ctcctgtcta ccgcctcggc tccaacgaca aggagatcat gaaggagctg 400
atggagaatg gccctgtcca agccctcatg gaggtgcatg aggacttctt 450

```

cctataacaag ggagggcatct acagccacac gccagtgagc cttggggaggc 500
cagagagata ccgcccggcat gggaccact cag 533

<210> 14
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic Oligonucleotide Probe

<400> 14
ttcgaggcct ctgagaagtg gccc 24

<210> 15
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic Oligonucleotide Probe

<400> 15
ggcggatatct ctctggcctc cc 22

<210> 16
<211> 50
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic Oligonucleotide Probe

<400> 16
ttctccacag cagctgtggc atccgatcgt gtctcaatcc attctctggg 50

<210> 17
<211> 960
<212> DNA
<213> Homo Sapien

<400> 17
gctgcttgcc ctgttgatgg caggcttggc cctgcagcca ggcactgccc 50
tgctgtgcta ctctgcaaa gccaggtga gcaacgagga ctgcctgcag 100
gtggagaact gcacccagct gggggagcag tgctggaccg cgcgcatccg 150
cgcagttggc ctctgaccg tcatcagcaa aggctgcagc ttgaactgcg 200
tggatgactc acaggactac tacgtgggca agaagaacat cacgtgctgt 250
gacaccgact tgtgcaacgc cagcggggcc catgccctgc agccggctgc 300
cgccatcctt gcgctgctcc ctgcactcgg cctgctgctc tggggacccg 350
gccagctata ggctctgggg ggccccgctg cagccacac tgggtgtggt 400

gccccaggcc tctgtgccac tcctcacaga cctggcccag tgggagcctg 450
 tcctgggttcc tgaggcacat cctaacgcaa gtctgaccat gtatgtctgc 500
 acccctgtcc cccaccctga ccctcccatg gccctctcca ggactcccac 550
 ccggcagatc agctctagtg acacagatcc gcctgcagat ggcccctcca 600
 accctctctg ctgctgtttc catggcccag cattctccac ccttaaccct 650
 gtgctcaggc acctcttccc ccaggaagcc ttccctgccc accccatcta 700
 tgacttgagc caggtctggt ccgtgggtgc ccccgacccc agcaggggac 750
 aggcactcag gagggcccag taaaggctga gatgaagtgg actgagtaga 800
 actggaggac aagagtcgac gtgagttcct gggagtctcc agagatgggg 850
 cctggaggcc tggaggaagg ggccaggcct cacattcgtg gggctccctg 900
 aatggcagcc tgagcacagc gtaggccctt aataaacacc tgttgataa 950

gccccaaaaa 960

<210> 18

<211> 189

<212> PRT

<213> Homo Sapien

<400> 18

Met	Thr	His	Arg	Thr	Thr	Thr	Trp	Ala	Arg	Arg	Thr	Ser	Arg	Ala
1				5					10					15
Val	Thr	Pro	Thr	Cys	Ala	Thr	Pro	Ala	Gly	Pro	Met	Pro	Cys	Ser
				20					25					30
Arg	Leu	Pro	Pro	Ser	Leu	Arg	Cys	Ser	Leu	His	Ser	Ala	Cys	Cys
				35					40					45
Ser	Gly	Asp	Pro	Ala	Ser	Tyr	Arg	Leu	Trp	Gly	Ala	Pro	Leu	Gln
				50					55					60
Pro	Thr	Leu	Gly	Val	Val	Pro	Gln	Ala	Ser	Val	Pro	Leu	Leu	Thr
				65					70					75
Asp	Leu	Ala	Gln	Trp	Glu	Pro	Val	Leu	Val	Pro	Glu	Ala	His	Pro
				80					85					90
Asn	Ala	Ser	Leu	Thr	Met	Tyr	Val	Cys	Thr	Pro	Val	Pro	His	Pro
				95					100					105
Asp	Pro	Pro	Met	Ala	Leu	Ser	Arg	Thr	Pro	Thr	Arg	Gln	Ile	Ser
				110					115					120
Ser	Ser	Asp	Thr	Asp	Pro	Pro	Ala	Asp	Gly	Pro	Ser	Asn	Pro	Leu
				125					130					135
Cys	Cys	Cys	Phe	His	Gly	Pro	Ala	Phe	Ser	Thr	Leu	Asn	Pro	Val

	140		145		150
Leu Arg His Leu Phe Pro Gln Glu Ala Phe Pro Ala His Pro Ile					
	155		160		165
Tyr Asp Leu Ser Gln Val Trp Ser Val Val Ser Pro Ala Pro Ser					
	170		175		180
Arg Gly Gln Ala Leu Arg Arg Ala Gln					
	185				

<210> 19
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic Oligonucleotide Probe

<400> 19
 tgctgtgcta ctctgcaaa gccc 24

<210> 20
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic Oligonucleotide Probe

<400> 20
 tgcacaagtc ggtgtcacag cacg 24

<210> 21
 <211> 44
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic Oligonucleotide Probe

<400> 21
 agcaacgagg actgcctgca ggtggagaac tgcacccagc tggg 44

<210> 22
 <211> 1200
 <212> DNA
 <213> Homo Sapien

<400> 22
 cccacgcgtc cgaacctctc cagcgatggg agccgcccgc ctgctgcca 50
 acctactct gtgcttacag ctgctgattc tctgctgtca aactcagtac 100
 gtgagggacc agggcgccat gaccgaccag ctgagcaggc ggcagatccg 150
 cgagtaccaa ctctacagca ggaccagtgg caagcacgtg caggtcaccg 200
 ggcgtcgcat ctccgccacc gccgaggacg gcaacaagtt tgccaagctc 250

atagtggaga cggacacgtt tggcagccgg gttcgcatca aaggggctga 300
 gagtgagaag tacatctgta tgaacaagag gggcaagctc atcggaagc 350
 ccagcgggaa gagcaaagac tgcgtgttca cggagatcgt gctggagaac 400
 aactatacgg ccttcagaa cggccggcac gagggctggg tcatggcctt 450
 cagcgggcag gggcgcccc gccaggcttc ccgcagccgc cagaaccagc 500
 gcgaggccca cttcatcaag cgcctctacc aaggccagct gcccttcccc 550
 aaccacgccg agaagcagaa gcagttcgag tttgtgggct ccgccccac 600
 ccgccggacc aagcgcacac ggcggcccca gcccctcacg tagtctggga 650
 ggcagggggc agcagccctt gggcgcctc cccaccctt tcccttctta 700
 atccaaggac tgggctgggg tggcgggagg ggagccagat ccccgaggga 750
 ggaccctgag ggccgcgaag catccgagcc cccagctggg aaggggcagg 800
 ccggtgcccc aggggcggct ggcacagtgc ccccttcccg gacgggtggc 850
 aggccctgga gaggaactga gtgtcacct gatctcaggc caccagcctc 900
 tgccggcctc ccagccgggc tcctgaagcc cgctgaaagg tcagcgactg 950
 aaggccttgc agacaaccgt ctggaggtgg ctgtcctcaa aatctgcttc 1000
 tcggatctcc ctcagtctgc cccagcccc caaactcctc ctggctagac 1050
 tgtaggaagg gacttttgtt tgtttgtttg tttcaggaaa aaagaaaggg 1100
 agagagagga aaatagaggg ttgtccactc ctcacattcc acgaccagg 1150
 cctgcacccc acccccaact cccagcccc gaataaaacc attttcctgc 1200

<210> 23
 <211> 205
 <212> PRT
 <213> Homo Sapien

<400> 23
 Met Gly Ala Ala Arg Leu Leu Pro Asn Leu Thr Leu Cys Leu Gln
 1 5 10 15
 Leu Leu Ile Leu Cys Cys Gln Thr Gln Tyr Val Arg Asp Gln Gly
 20 25 30
 Ala Met Thr Asp Gln Leu Ser Arg Arg Gln Ile Arg Glu Tyr Gln
 35 40 45
 Leu Tyr Ser Arg Thr Ser Gly Lys His Val Gln Val Thr Gly Arg
 50 55 60
 Arg Ile Ser Ala Thr Ala Glu Asp Gly Asn Lys Phe Ala Lys Leu
 65 70 75

Ile	Val	Glu	Thr	Asp	Thr	Phe	Gly	Ser	Arg	Val	Arg	Ile	Lys	Gly	
				80					85					90	
Ala	Glu	Ser	Glu	Lys	Tyr	Ile	Cys	Met	Asn	Lys	Arg	Gly	Lys	Leu	
				95					100					105	
Ile	Gly	Lys	Pro	Ser	Gly	Lys	Ser	Lys	Asp	Cys	Val	Phe	Thr	Glu	
				110					115					120	
Ile	Val	Leu	Glu	Asn	Asn	Tyr	Thr	Ala	Phe	Gln	Asn	Ala	Arg	His	
				125					130					135	
Glu	Gly	Trp	Phe	Met	Ala	Phe	Thr	Arg	Gln	Gly	Arg	Pro	Arg	Gln	
				140					145					150	
Ala	Ser	Arg	Ser	Arg	Gln	Asn	Gln	Arg	Glu	Ala	His	Phe	Ile	Lys	
				155					160					165	
Arg	Leu	Tyr	Gln	Gly	Gln	Leu	Pro	Phe	Pro	Asn	His	Ala	Glu	Lys	
				170					175					180	
Gln	Lys	Gln	Phe	Glu	Phe	Val	Gly	Ser	Ala	Pro	Thr	Arg	Arg	Thr	
				185					190					195	
Lys	Arg	Thr	Arg	Arg	Pro	Gln	Pro	Leu	Thr						
				200					205						

<210> 24
 <211> 28
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic Oligonucleotide Probe

<400> 24
 cagtacgtga gggaccaggg cgccatga 28

<210> 25
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic Oligonucleotide Probe

<400> 25
 ccggtgacct gcacgtgctt gcca 24

<210> 26
 <211> 41
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic Oligonucleotide Probe

<220>

<221> unsure

<222> 21

<223> unknown base

<400> 26

gcggatctgc cgcctgctca nctggtcggg catggcgccc t 41

<210> 27

<211> 2479

<212> DNA

<213> Homo Sapien

<400> 27

acttgccatc acctgttgcc agtgtggaaa aattctccct gttgaatttt 50

ttgcacatgg aggacagcag caaagagggc aacacaggct gataagacca 100

gagacagcag ggagattatt ttaccatacg ccctcaggac gttccctcta 150

gctggagttc tggacttcaa cagaaccca tccagtcatt ttgattttgc 200

tgtttatttt ttttttcttt ttctttttcc caccacattg tattttattt 250

ccgtacttca gaaatgggccc tacagaccac aaagtggccc agccatgggg 300

cttttttccct gaagtcttgg cttatcattt ccctggggct ctactcacag 350

gtgtccaaac tcctggcctg ccctagtgtg tgccgctgcg acaggaactt 400

tgtctactgt aatgagcgaa gcttgacctc agtgccctctt gggatcccgg 450

agggcgtaac cgtactctac ctccacaaca accaaattaa taatgctgga 500

tttccctgcag aactgcacaa tgtacagtcg gtgcacacgg tctacctgta 550

tggcaaccaa ctggacgaat tccccatgaa ccttcccaag aatgtcagag 600

ttctccattt gcaggaaaac aatattcaga ccatttcaag ggctgctctt 650

gcccagctct tgaagcttga agagctgcac ctggatgaca actccatata 700

cacagtgggg gtggaagacg gggccttccg ggaggctatt agcctcaaat 750

tgttgttttt gtctaagaat cacctgagca gtgtgcctgt tgggcttcct 800

gtggacttgc aagagctgag agtggatgaa aatcgaattg ctgtcatata 850

cgacatggcc ttccagaatc tcacgagctt ggagcgtctt attgtggacg 900

ggaacctcct gaccaacaag ggtatcgccg agggcacctt cagccatctc 950

accaagctca aggaattttc aattgtacgt aattcgctgt cccaccctcc 1000

tcccgatctc ccaggtagcg atctgatcag gctctatttg caggacaacc 1050

agataaacca cattcctttg acagccttct caaatctgcg taagctggaa 1100

cggctggata tatccaacaa ccaactgcgg atgctgactc aaggggtttt 1150

tgataatctc tccaacctga agcagctcac tgcctggaat aacccttggt 1200
 tttgtgactg cagtattaaa tgggtcacag aatgggtcaa atatatccct 1250
 tcatctctca acgtgcgggg tttcatgtgc caaggctctg aacaagtccg 1300
 ggggatggcc gtcaggggaat taaatatgaa tcttttgtcc tgtcccacca 1350
 cgacccccgg cctgcctctc ttcaccccag cccaagtac agcttctccg 1400
 accactcagc ctcccaccct ctctattcca aaccctagca gaagctacac 1450
 gcctccaact cctaccacat cgaaacttcc cacgattcct gactgggatg 1500
 gcagagaaaag agtgacccca cctatttctg aacggatcca gctctctatc 1550
 cattttgtga atgatacttc cattcaagtc agctggctct ctctcttcac 1600
 cgtgatggca tacaaaactca catgggtgaa aatgggccac agtttagtag 1650
 ggggcatcgt tcaggagcgc atagtcagcg gtgagaagca acacctgagc 1700
 ctgggttaact tagagccccg atccacctat cggatttggt tagtgccact 1750
 ggatgctttt aactaccgcg cggtagaaga caccatttgt tcagaggcca 1800
 ccacccatgc ctcttatctg aacaacggca gcaacacagc gtccagccat 1850
 gagcagacga cgtcccacag catgggctcc ccctttctgc tggcgggctt 1900
 gatcgggggc gcggtgatat ttgtgctggg ggtcttctc agcgtctttt 1950
 gctggcatat gcacaaaaag gggcgctaca cctcccagaa gtggaaatac 2000
 aaccggggcc ggcggaaaga tgattattgc gaggcaggca ccaagaagga 2050
 caactccatc ctggagatga cagaaaccag ttttcagatc gtctccttaa 2100
 ataacgatca actccttaaa ggagatttca gactgcagcc catttacacc 2150
 ccaaattgggg gcattaatta cacagactgc catatcccca acaacatgcg 2200
 atactgcaac agcagcgtgc cagacctgga gcaactgcat acgtgacagc 2250
 cagaggccca gcgttatcaa ggcggacaat tagactcttg agaacacact 2300
 cgtgtgtgca cataaagaca cgcagattac atttgataaa tgttacacag 2350
 atgcatttgt gcatttgaat actctgtaat ttatacgggtg tactatataa 2400
 tgggatttaa aaaaagtgtc atcttttcta tttcaagtta attacaaaca 2450
 gttttgtaac tctttgcttt ttaaactctt 2479

<210> 28
 <211> 660
 <212> PRT
 <213> Homo Sapien

<400> 28

Met	Gly	Leu	Gln	Thr	Thr	Lys	Trp	Pro	Ser	His	Gly	Ala	Phe	Phe	1	5	10	15
Leu	Lys	Ser	Trp	Leu	Ile	Ile	Ser	Leu	Gly	Leu	Tyr	Ser	Gln	Val	20	25	30	
Ser	Lys	Leu	Leu	Ala	Cys	Pro	Ser	Val	Cys	Arg	Cys	Asp	Arg	Asn	35	40	45	
Phe	Val	Tyr	Cys	Asn	Glu	Arg	Ser	Leu	Thr	Ser	Val	Pro	Leu	Gly	50	55	60	
Ile	Pro	Glu	Gly	Val	Thr	Val	Leu	Tyr	Leu	His	Asn	Asn	Gln	Ile	65	70	75	
Asn	Asn	Ala	Gly	Phe	Pro	Ala	Glu	Leu	His	Asn	Val	Gln	Ser	Val	80	85	90	
His	Thr	Val	Tyr	Leu	Tyr	Gly	Asn	Gln	Leu	Asp	Glu	Phe	Pro	Met	95	100	105	
Asn	Leu	Pro	Lys	Asn	Val	Arg	Val	Leu	His	Leu	Gln	Glu	Asn	Asn	110	115	120	
Ile	Gln	Thr	Ile	Ser	Arg	Ala	Ala	Leu	Ala	Gln	Leu	Leu	Lys	Leu	125	130	135	
Glu	Glu	Leu	His	Leu	Asp	Asp	Asn	Ser	Ile	Ser	Thr	Val	Gly	Val	140	145	150	
Glu	Asp	Gly	Ala	Phe	Arg	Glu	Ala	Ile	Ser	Leu	Lys	Leu	Leu	Phe	155	160	165	
Leu	Ser	Lys	Asn	His	Leu	Ser	Ser	Val	Pro	Val	Gly	Leu	Pro	Val	170	175	180	
Asp	Leu	Gln	Glu	Leu	Arg	Val	Asp	Glu	Asn	Arg	Ile	Ala	Val	Ile	185	190	195	
Ser	Asp	Met	Ala	Phe	Gln	Asn	Leu	Thr	Ser	Leu	Glu	Arg	Leu	Ile	200	205	210	
Val	Asp	Gly	Asn	Leu	Leu	Thr	Asn	Lys	Gly	Ile	Ala	Glu	Gly	Thr	215	220	225	
Phe	Ser	His	Leu	Thr	Lys	Leu	Lys	Glu	Phe	Ser	Ile	Val	Arg	Asn	230	235	240	
Ser	Leu	Ser	His	Pro	Pro	Pro	Asp	Leu	Pro	Gly	Thr	His	Leu	Ile	245	250	255	
Arg	Leu	Tyr	Leu	Gln	Asp	Asn	Gln	Ile	Asn	His	Ile	Pro	Leu	Thr	260	265	270	
Ala	Phe	Ser	Asn	Leu	Arg	Lys	Leu	Glu	Arg	Leu	Asp	Ile	Ser	Asn	275	280	285	
Asn	Gln	Leu	Arg	Met	Leu	Thr	Gln	Gly	Val	Phe	Asp	Asn	Leu	Ser	290	295	300	

Asn	Leu	Lys	Gln	Leu	Thr	Ala	Arg	Asn	Asn	Pro	Trp	Phe	Cys	Asp	
				305					310					315	
Cys	Ser	Ile	Lys	Trp	Val	Thr	Glu	Trp	Leu	Lys	Tyr	Ile	Pro	Ser	
				320					325					330	
Ser	Leu	Asn	Val	Arg	Gly	Phe	Met	Cys	Gln	Gly	Pro	Glu	Gln	Val	
				335					340					345	
Arg	Gly	Met	Ala	Val	Arg	Glu	Leu	Asn	Met	Asn	Leu	Leu	Ser	Cys	
				350					355					360	
Pro	Thr	Thr	Thr	Pro	Gly	Leu	Pro	Leu	Phe	Thr	Pro	Ala	Pro	Ser	
				365					370					375	
Thr	Ala	Ser	Pro	Thr	Thr	Gln	Pro	Pro	Thr	Leu	Ser	Ile	Pro	Asn	
				380					385					390	
Pro	Ser	Arg	Ser	Tyr	Thr	Pro	Pro	Thr	Pro	Thr	Thr	Ser	Lys	Leu	
				395					400					405	
Pro	Thr	Ile	Pro	Asp	Trp	Asp	Gly	Arg	Glu	Arg	Val	Thr	Pro	Pro	
				410					415					420	
Ile	Ser	Glu	Arg	Ile	Gln	Leu	Ser	Ile	His	Phe	Val	Asn	Asp	Thr	
				425					430					435	
Ser	Ile	Gln	Val	Ser	Trp	Leu	Ser	Leu	Phe	Thr	Val	Met	Ala	Tyr	
				440					445					450	
Lys	Leu	Thr	Trp	Val	Lys	Met	Gly	His	Ser	Leu	Val	Gly	Gly	Ile	
				455					460					465	
Val	Gln	Glu	Arg	Ile	Val	Ser	Gly	Glu	Lys	Gln	His	Leu	Ser	Leu	
				470					475					480	
Val	Asn	Leu	Glu	Pro	Arg	Ser	Thr	Tyr	Arg	Ile	Cys	Leu	Val	Pro	
				485					490					495	
Leu	Asp	Ala	Phe	Asn	Tyr	Arg	Ala	Val	Glu	Asp	Thr	Ile	Cys	Ser	
				500					505					510	
Glu	Ala	Thr	Thr	His	Ala	Ser	Tyr	Leu	Asn	Asn	Gly	Ser	Asn	Thr	
				515					520					525	
Ala	Ser	Ser	His	Glu	Gln	Thr	Thr	Ser	His	Ser	Met	Gly	Ser	Pro	
				530					535					540	
Phe	Leu	Leu	Ala	Gly	Leu	Ile	Gly	Gly	Ala	Val	Ile	Phe	Val	Leu	
				545					550					555	
Val	Val	Leu	Leu	Ser	Val	Phe	Cys	Trp	His	Met	His	Lys	Lys	Gly	
				560					565					570	
Arg	Tyr	Thr	Ser	Gln	Lys	Trp	Lys	Tyr	Asn	Arg	Gly	Arg	Arg	Lys	
				575					580					585	
Asp	Asp	Tyr	Cys	Glu	Ala	Gly	Thr	Lys	Lys	Asp	Asn	Ser	Ile	Leu	
				590					595					600	

Glu	Met	Thr	Glu	Thr	Ser	Phe	Gln	Ile	Val	Ser	Leu	Asn	Asn	Asp
				605					610					615
Gln	Leu	Leu	Lys	Gly	Asp	Phe	Arg	Leu	Gln	Pro	Ile	Tyr	Thr	Pro
				620					625					630
Asn	Gly	Gly	Ile	Asn	Tyr	Thr	Asp	Cys	His	Ile	Pro	Asn	Asn	Met
				635					640					645
Arg	Tyr	Cys	Asn	Ser	Ser	Val	Pro	Asp	Leu	Glu	His	Cys	His	Thr
				650					655					660

<210> 29
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic Oligonucleotide Probe

<400> 29
 cggtctacct gstatggcaac c 21

<210> 30
 <211> 22
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic Oligonucleotide Probe

<400> 30
 gcaggacaac cagataaacc ac 22

<210> 31
 <211> 22
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic Oligonucleotide Probe

<400> 31
 acgcagattt gagaaggctg tc 22

<210> 32
 <211> 46
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic Oligonucleotide Probe

<400> 32
 ttcacgggct gctcttgccc agctcttgaa gcttgaagag ctgcac 46

<210> 33
 <211> 3449

<212> DNA
<213> Homo Sapien

<400> 33
acttgagca agcggcggcg gcggagacag aggcagaggc agaagctggg 50
gctccgtcct cgcctccac gagcgatccc cgaggagagc cgcgccctc 100
ggcgaggcga agaggccgac gaggaagacc cgggtggctg cgccctgcc 150
tcgcttccca ggcgcggcg gctgcagcct tgccccctctt gctcgccttg 200
aaaatggaaa agatgctcgc aggctgcttt ctgctgatcc tcggacagat 250
cgtcctcctc cctgccgagg ccaggagcg gtcacgtggg aggtccatct 300
ctaggggcag acacgctcgg acccaccgc agacggccct tctggagagt 350
tcctgtgaga acaagcgggc agacctggtt ttcattcattg acagctctcg 400
cagtgtcaac acccatgact atgcaaaggt caaggagttc atcgtggaca 450
tcttgcaatt cttggacatt ggtcctgatg tcacccgagt gggcctgctc 500
caatatggca gcactgtcaa gaatgagttc tccctcaaga ccttcaagag 550
gaagtccgag gtggagcgtg ctgtcaagag gatgcggcat ctgtccacgg 600
gcaccatgac tgggctggcc atccagtatg ccctgaacat cgcattctca 650
gaagcagagg gggcccggcc cctgaggag aatgtgccac gggtcataat 700
gatcgtgaca gatgggagac ctcaggactc cgtggccgag gtggctgcta 750
aggcacggga cacgggcatc ctaatctttg ccattggtgt gggccaggta 800
gacttcaaca ccttgaagtc cattgggagt gagcccatg aggaccatgt 850
cttccttggtg gccaatctca gccagattga gacgctgacc tccgtgttcc 900
agaagaagtt gtgcacggcc cacatgtgca gcaccctgga gcataactgt 950
gccacttct gcacaaacat ccctggctca tacgtctgca ggtgcaaaca 1000
aggctacatt ctcaactcgg atcagacgac ttgcagaatc caggatctgt 1050
gtgccatgga ggaccacaac tgtgagcagc tctgtgtgaa tgtgccgggc 1100
tccttcgtct gccagtgcta cagtggctac gccctggctg aggatgggaa 1150
gaggtgtgtg gctgtggact actgtgcctc agaaaaccac ggatgtgaac 1200
atgagtgtgt aaatgctgat ggctcctacc tttgccagtg ccatgaagga 1250
tttgctctta acccagatga aaaaacgtgc acaaggatca actactgtgc 1300
actgaacaaa ccgggctgtg agcatgagtg cgtcaacatg gaggagagct 1350
actactgccg ctgccaccgt ggctacactc tggaccccaa tggcaaaacc 1400

tgcagccgag tggaccactg tgcacagcag gaccatggct gtgagcagct 1450
 gtgtctgaac acggaggatt ccttcgtctg ccagtgtctca gaaggcttcc 1500
 tcatcaacga ggacctcaag acctgctccc ggggtggatta ctgcctgctg 1550
 agtgaccatg gttgtgaata ctctgtgtc aacatggaca gatcctttgc 1600
 ctgtcagtggt cctgaggggac acgtgctccg cagcgatggg aagacgtgtg 1650
 caaaattgga ctcttgtgct ctgggggacc acggttgtga acattcgtgt 1700
 gtaagcagtg aagattcgtt tgtgtgccag tgctttgaag gttatatact 1750
 ccgtgaagat ggaaaaacct gcagaaggaa agatgtctgc caagctatag 1800
 accatggctg tgaacacatt tgtgtgaaca gtgacgactc atacacgtgc 1850
 gagtgcttgg agggattccg gctcgtgag gatgggaaac gctgccgaag 1900
 gaaggatgtc tgcaaatcaa cccaccatgg ctgcgaacac atttgtgtta 1950
 ataatgggaa ttcctacatc tgcaaatgct cagagggatt tgttctagct 2000
 gaggacggaa gacggtgcaa gaaatgcact gaaggcccaa ttgacctggg 2050
 ctttgtgatc gatggatcca agagtcttgg agaagagaat tttgaggtcg 2100
 tgaagcagtt tgtcactgga attatagatt ccttgacaat ttcccccaaa 2150
 gccgctcgag tggggctgct ccagtattcc acacagggtcc acacagagtt 2200
 cactctgaga aacttcaact cagccaaaga catgaaaaaa gccgtggccc 2250
 acatgaaata catgggaaag ggctctatga ctgggctggc cctgaaacac 2300
 atgtttgaga gaagttttac ccaaggagaa ggggccaggc ccctttccac 2350
 aagggtgccc agagcagcca ttgtgttcac cgacggacgg gctcaggatg 2400
 acgtctccga gtgggccagt aaagccaagg ccaatgggat cactatgtat 2450
 gctgttgggg taggaaaagc cattgaggag gaactacaag agattgcctc 2500
 tgagcccaca aacaagcatc tcttctatgc cgaagacttc agcacaatgg 2550
 atgagataag tgaaaaactc aagaaaggca tctgtgaagc tctagaagac 2600
 tccgatggaa gacaggactc tccagcaggg gaactgcca aaacggtcca 2650
 acagccaaca gaatctgagc cagtcaccat aaatatccaa gacctacttt 2700
 cctgtttctaa ttttgcagtg caacacagat atctgtttga agaagacaat 2750
 cttttacggg ctacacaaaa gctttcccat tcaacaaaac cttcaggaag 2800
 ccctttggaa gaaaaacacg atcaatgcaa atgtgaaaac cttataatgt 2850
 tccagaacct tgcaaacgaa gaagtaagaa aattaacaca gcgcttagaa 2900

gaaatgacac agagaatgga agccctggaa aatcgccctga gatacagatg 2950
 aagattagaa atcgcgacac atttgtagtc attgtatcac ggattacaat 3000
 gaacgcagtg cagagcccca aagctcaggc tattgttaaa tcaataatgt 3050
 tgtgaagtaa aacaatcagt actgagaaac ctggtttgcc acagaacaaa 3100
 gacaagaagt atacactaac ttgtataaat ttatctagga aaaaaatcct 3150
 tcagaattct aagatgaatt taccaggtga gaatgaataa gctatgcaag 3200
 gtattttgta atatactgtg gacacaactt gcttctgcct catcctgcct 3250
 tagtgtgcaa tctcatttga ctatacgata aagtttgcac agtcttactt 3300
 ctgtagaaca ctggccatag gaaatgctgt ttttttgtag tggactttac 3350
 cttgatatat gtatatggat gtatgcataa aatcatagga catatgtact 3400
 tgtggaacaa gttggatttt ttatacaata ttaaaattca ccacttcag 3449

<210> 34

<211> 915

<212> PRT

<213> Homo Sapien

<400> 34

Met	Glu	Lys	Met	Leu	Ala	Gly	Cys	Phe	Leu	Leu	Ile	Leu	Gly	Gln
1				5					10					15
Ile	Val	Leu	Leu	Pro	Ala	Glu	Ala	Arg	Glu	Arg	Ser	Arg	Gly	Arg
				20					25					30
Ser	Ile	Ser	Arg	Gly	Arg	His	Ala	Arg	Thr	His	Pro	Gln	Thr	Ala
				35					40					45
Leu	Leu	Glu	Ser	Ser	Cys	Glu	Asn	Lys	Arg	Ala	Asp	Leu	Val	Phe
				50					55					60
Ile	Ile	Asp	Ser	Ser	Arg	Ser	Val	Asn	Thr	His	Asp	Tyr	Ala	Lys
				65					70					75
Val	Lys	Glu	Phe	Ile	Val	Asp	Ile	Leu	Gln	Phe	Leu	Asp	Ile	Gly
				80					85					90
Pro	Asp	Val	Thr	Arg	Val	Gly	Leu	Leu	Gln	Tyr	Gly	Ser	Thr	Val
				95					100					105
Lys	Asn	Glu	Phe	Ser	Leu	Lys	Thr	Phe	Lys	Arg	Lys	Ser	Glu	Val
				110					115					120
Glu	Arg	Ala	Val	Lys	Arg	Met	Arg	His	Leu	Ser	Thr	Gly	Thr	Met
				125					130					135
Thr	Gly	Leu	Ala	Ile	Gln	Tyr	Ala	Leu	Asn	Ile	Ala	Phe	Ser	Glu
				140					145					150
Ala	Glu	Gly	Ala	Arg	Pro	Leu	Arg	Glu	Asn	Val	Pro	Arg	Val	Ile

	155	160	165
Met Ile Val Thr	Asp Gly Arg Pro Gln	Asp Ser Val Ala Glu	Val
	170	175	180
Ala Ala Lys Ala	Arg Asp Thr Gly Ile	Leu Ile Phe Ala Ile	Gly
	185	190	195
Val Gly Gln Val	Asp Phe Asn Thr Leu	Lys Ser Ile Gly Ser	Glu
	200	205	210
Pro His Glu Asp	His Val Phe Leu Val	Ala Asn Phe Ser Gln	Ile
	215	220	225
Glu Thr Leu Thr	Ser Val Phe Gln Lys	Lys Leu Cys Thr Ala	His
	230	235	240
Met Cys Ser Thr	Leu Glu His Asn Cys	Ala His Phe Cys Ile	Asn
	245	250	255
Ile Pro Gly Ser	Tyr Val Cys Arg Cys	Lys Gln Gly Tyr Ile	Leu
	260	265	270
Asn Ser Asp Gln	Thr Thr Cys Arg Ile	Gln Asp Leu Cys Ala	Met
	275	280	285
Glu Asp His Asn	Cys Glu Gln Leu Cys	Val Asn Val Pro Gly	Ser
	290	295	300
Phe Val Cys Gln	Cys Tyr Ser Gly Tyr	Ala Leu Ala Glu Asp	Gly
	305	310	315
Lys Arg Cys Val	Ala Val Asp Tyr Cys	Ala Ser Glu Asn His	Gly
	320	325	330
Cys Glu His Glu	Cys Val Asn Ala Asp	Gly Ser Tyr Leu Cys	Gln
	335	340	345
Cys His Glu Gly	Phe Ala Leu Asn Pro	Asp Glu Lys Thr Cys	Thr
	350	355	360
Arg Ile Asn Tyr	Cys Ala Leu Asn Lys	Pro Gly Cys Glu His	Glu
	365	370	375
Cys Val Asn Met	Glu Glu Ser Tyr Tyr	Cys Arg Cys His Arg	Gly
	380	385	390
Tyr Thr Leu Asp	Pro Asn Gly Lys Thr	Cys Ser Arg Val Asp	His
	395	400	405
Cys Ala Gln Gln	Asp His Gly Cys Glu	Gln Leu Cys Leu Asn	Thr
	410	415	420
Glu Asp Ser Phe	Val Cys Gln Cys Ser	Glu Gly Phe Leu Ile	Asn
	425	430	435
Glu Asp Leu Lys	Thr Cys Ser Arg Val	Asp Tyr Cys Leu Leu	Ser
	440	445	450

Asp	His	Gly	Cys	Glu	Tyr	Ser	Cys	Val	Asn	Met	Asp	Arg	Ser	Phe	455	460	465
Ala	Cys	Gln	Cys	Pro	Glu	Gly	His	Val	Leu	Arg	Ser	Asp	Gly	Lys	470	475	480
Thr	Cys	Ala	Lys	Leu	Asp	Ser	Cys	Ala	Leu	Gly	Asp	His	Gly	Cys	485	490	495
Glu	His	Ser	Cys	Val	Ser	Ser	Glu	Asp	Ser	Phe	Val	Cys	Gln	Cys	500	505	510
Phe	Glu	Gly	Tyr	Ile	Leu	Arg	Glu	Asp	Gly	Lys	Thr	Cys	Arg	Arg	515	520	525
Lys	Asp	Val	Cys	Gln	Ala	Ile	Asp	His	Gly	Cys	Glu	His	Ile	Cys	530	535	540
Val	Asn	Ser	Asp	Asp	Ser	Tyr	Thr	Cys	Glu	Cys	Leu	Glu	Gly	Phe	545	550	555
Arg	Leu	Ala	Glu	Asp	Gly	Lys	Arg	Cys	Arg	Arg	Lys	Asp	Val	Cys	560	565	570
Lys	Ser	Thr	His	His	Gly	Cys	Glu	His	Ile	Cys	Val	Asn	Asn	Gly	575	580	585
Asn	Ser	Tyr	Ile	Cys	Lys	Cys	Ser	Glu	Gly	Phe	Val	Leu	Ala	Glu	590	595	600
Asp	Gly	Arg	Arg	Cys	Lys	Lys	Cys	Thr	Glu	Gly	Pro	Ile	Asp	Leu	605	610	615
Val	Phe	Val	Ile	Asp	Gly	Ser	Lys	Ser	Leu	Gly	Glu	Glu	Asn	Phe	620	625	630
Glu	Val	Val	Lys	Gln	Phe	Val	Thr	Gly	Ile	Ile	Asp	Ser	Leu	Thr	635	640	645
Ile	Ser	Pro	Lys	Ala	Ala	Arg	Val	Gly	Leu	Leu	Gln	Tyr	Ser	Thr	650	655	660
Gln	Val	His	Thr	Glu	Phe	Thr	Leu	Arg	Asn	Phe	Asn	Ser	Ala	Lys	665	670	675
Asp	Met	Lys	Lys	Ala	Val	Ala	His	Met	Lys	Tyr	Met	Gly	Lys	Gly	680	685	690
Ser	Met	Thr	Gly	Leu	Ala	Leu	Lys	His	Met	Phe	Glu	Arg	Ser	Phe	695	700	705
Thr	Gln	Gly	Glu	Gly	Ala	Arg	Pro	Leu	Ser	Thr	Arg	Val	Pro	Arg	710	715	720
Ala	Ala	Ile	Val	Phe	Thr	Asp	Gly	Arg	Ala	Gln	Asp	Asp	Val	Ser	725	730	735
Glu	Trp	Ala	Ser	Lys	Ala	Lys	Ala	Asn	Gly	Ile	Thr	Met	Tyr	Ala	740	745	750

Val Gly Val Gly	Lys Ala Ile Glu Glu Glu Leu Gln Glu Ile Ala	755	760	765
Ser Glu Pro Thr	Asn Lys His Leu Phe Tyr Ala Glu Asp Phe Ser	770	775	780
Thr Met Asp Glu	Ile Ser Glu Lys Leu Lys Lys Gly Ile Cys Glu	785	790	795
Ala Leu Glu Asp	Ser Asp Gly Arg Gln Asp Ser Pro Ala Gly Glu	800	805	810
Leu Pro Lys Thr	Val Gln Gln Pro Thr Glu Ser Glu Pro Val Thr	815	820	825
Ile Asn Ile Gln	Asp Leu Leu Ser Cys Ser Asn Phe Ala Val Gln	830	835	840
His Arg Tyr Leu	Phe Glu Glu Asp Asn Leu Leu Arg Ser Thr Gln	845	850	855
Lys Leu Ser His	Ser Thr Lys Pro Ser Gly Ser Pro Leu Glu Glu	860	865	870
Lys His Asp Gln	Cys Lys Cys Glu Asn Leu Ile Met Phe Gln Asn	875	880	885
Leu Ala Asn Glu	Glu Val Arg Lys Leu Thr Gln Arg Leu Glu Glu	890	895	900
Met Thr Gln Arg	Met Glu Ala Leu Glu Asn Arg Leu Arg Tyr Arg	905	910	915

<210> 35
 <211> 23
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic Oligonucleotide Probe

<400> 35
 gtgaccctgg ttgtgaatac tcc 23

<210> 36
 <211> 22
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic Oligonucleotide Probe

<400> 36
 acagccatgg tctatagctt gg 22

<210> 37
 <211> 45
 <212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Oligonucleotide Probe

<400> 37

gcctgtcagt gtcctgaggg acacgtgctc cgcagcgatg ggaag 45

<210> 38

<211> 1813

<212> DNA

<213> Homo Sapien

<400> 38

ggagccgccc tgggtgtcag cggctcggct cccgcgcacg ctccggccgt 50
cgcgcagcct cggcacctgc aggtccgtgc gtcccgcggc tggcgcccct 100
gactccgtcc cggccaggga gggccatgat ttccctcccg gggcccctgg 150
tgaccaactt gctgcggttt ttgttcctgg ggctgagtgc cctcgcgccc 200
ccctcgcggg cccagctgca actgcacttg cccgccaacc ggttgcaggc 250
gggtggaggga ggggaagtgg tgcttcacgc gtggtacacc ttgcacgggg 300
aggtgtcttc atcccagcca tgggaggtgc cctttgtgat gtggttcttc 350
aaacagaaag aaaaggagga tcaggtgttg tcctacatca atggggtcac 400
aacaagcaaa cctggagtat ccttgggtcta ctccatgccc tcccgaacc 450
tgtccctgcg gctggagggt ctccaggaga aagactctgg cccctacagc 500
tgctccgtga atgtgcaaga caaacaaggc aaatctaggg gccacagcat 550
caaaacotta gaactcaatg tactggttcc tccagctcct ccacctgcc 600
gtctccaggg tgtgccccat gtgggggcaa acgtgaccct gagctgccag 650
tctccaagga gtaagcccgc tgtccaatac cagtgggacg ggcagcttcc 700
atccttccag actttctttg caccagcatt agatgtcatc cgtgggtctt 750
taagcctcac caacctttcg tcttccatgg ctggagtcta tgtctgcaag 800
gcccacaatg aggtgggcac tgcccaatgt aatgtgacgc tggaagtgag 850
cacagggcct ggagctgcag tggttgctgg agctgttggt ggtaccctgg 900
ttggactggg gttgctggct gggctggctc tcttgtacca ccgccggggc 950
aaggccctgg aggagccagc caatgatatc aaggaggatg ccattgctcc 1000
ccggaccctg ccctggccca agagctcaga cacaatctcc aagaatggga 1050
ccctttcttc tgtcacctcc gcacgagccc tccggccacc ccattggcct 1100
cccaggcctg gtgcattgac cccacgccc agtctctcca gccaggcct 1150

gccctcacca agactgccca cgacagatgg ggcccaccct caaccaatat 1200
 ccccatcccc tgggtggggtt tcttctctg gcttgagccg catgggtgct 1250
 gtgcctgtga tgggtgcctgc ccagagtcaa gctggctctc tggatatgatg 1300
 accccaccac tcattggcta aaggatttgg ggtctctcct tcctataagg 1350
 gtcacctcta gcacagaggc ctgagtcatg ggaaagagtc acactcctga 1400
 cccttagtac tctgccccca cctctcttta ctgtgggaaa accatctcag 1450
 taagacctaa gtgtccagga gacagaagga gaagaggaag tggatctgga 1500
 attgggagga gcctccapcc acccctgact cctccttatg aagccagctg 1550
 ctgaaattag ctactcacca agagtgaggg gcagagactt ccagtcactg 1600
 agtctcccag gcccccttga tctgtacccc acccctatct aacaccaccc 1650
 ttggctccca ctccagctcc ctgtattgat ataacctgtc aggtctggctt 1700
 ggttagggtt tactggggca gaggataggg aatctcttat taaaactaac 1750
 atgaaatatg tgttgttttc atttgcaa ataaataaag atacataatg 1800
 tttgtatgaa aaa 1813

<210> 39
 <211> 390
 <212> PRT
 <213> Homo Sapien

<400> 39
 Met Ile Ser Leu Pro Gly Pro Leu Val Thr Asn Leu Leu Arg Phe
 1 5 10 15
 Leu Phe Leu Gly Leu Ser Ala Leu Ala Pro Pro Ser Arg Ala Gln
 20 25 30
 Leu Gln Leu His Leu Pro Ala Asn Arg Leu Gln Ala Val Glu Gly
 35 40 45
 Gly Glu Val Val Leu Pro Ala Trp Tyr Thr Leu His Gly Glu Val
 50 55 60
 Ser Ser Ser Gln Pro Trp Glu Val Pro Phe Val Met Trp Phe Phe
 65 70 75
 Lys Gln Lys Glu Lys Glu Asp Gln Val Leu Ser Tyr Ile Asn Gly
 80 85 90
 Val Thr Thr Ser Lys Pro Gly Val Ser Leu Val Tyr Ser Met Pro
 95 100 105
 Ser Arg Asn Leu Ser Leu Arg Leu Glu Gly Leu Gln Glu Lys Asp
 110 115 120
 Ser Gly Pro Tyr Ser Cys Ser Val Asn Val Gln Asp Lys Gln Gly

	125	130	135
Lys Ser Arg Gly His Ser Ile Lys Thr Leu Glu Leu Asn Val Leu	140	145	150
Val Pro Pro Ala Pro Pro Ser Cys Arg Leu Gln Gly Val Pro His	155	160	165
Val Gly Ala Asn Val Thr Leu Ser Cys Gln Ser Pro Arg Ser Lys	170	175	180
Pro Ala Val Gln Tyr Gln Trp Asp Arg Gln Leu Pro Ser Phe Gln	185	190	195
Thr Phe Phe Ala Pro Ala Leu Asp Val Ile Arg Gly Ser Leu Ser	200	205	210
Leu Thr Asn Leu Ser Ser Ser Met Ala Gly Val Tyr Val Cys Lys	215	220	225
Ala His Asn Glu Val Gly Thr Ala Gln Cys Asn Val Thr Leu Glu	230	235	240
Val Ser Thr Gly Pro Gly Ala Ala Val Val Ala Gly Ala Val Val	245	250	255
Gly Thr Leu Val Gly Leu Gly Leu Leu Ala Gly Leu Val Leu Leu	260	265	270
Tyr His Arg Arg Gly Lys Ala Leu Glu Glu Pro Ala Asn Asp Ile	275	280	285
Lys Glu Asp Ala Ile Ala Pro Arg Thr Leu Pro Trp Pro Lys Ser	290	295	300
Ser Asp Thr Ile Ser Lys Asn Gly Thr Leu Ser Ser Val Thr Ser	305	310	315
Ala Arg Ala Leu Arg Pro Pro His Gly Pro Pro Arg Pro Gly Ala	320	325	330
Leu Thr Pro Thr Pro Ser Leu Ser Ser Gln Ala Leu Pro Ser Pro	335	340	345
Arg Leu Pro Thr Thr Asp Gly Ala His Pro Gln Pro Ile Ser Pro	350	355	360
Ile Pro Gly Gly Val Ser Ser Ser Gly Leu Ser Arg Met Gly Ala	365	370	375
Val Pro Val Met Val Pro Ala Gln Ser Gln Ala Gly Ser Leu Val	380	385	390

<210> 40

<211> 22

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Oligonucleotide Probe

<400> 40
 aggggtctcca ggagaaagac tc 22

<210> 41
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic Oligonucleotide Probe

<400> 41
 attgtgggcc ttgcagacat agac 24

<210> 42
 <211> 50
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic Oligonucleotide Probe

<400> 42
 ggccacagca tcaaaacctt agaactcaat gtactggttc ctccagctcc 50

<210> 43
 <211> 18
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic Oligonucleotide Probe

<400> 43
 gtgtgacaca gcgtgggc 18

<210> 44
 <211> 18
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic Oligonucleotide Probe

<400> 44
 gaccggcagg cttctgcg 18

<210> 45
 <211> 25
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic Oligonucleotide Probe

<400> 45
 cagcagcttc agccaccagg agtgg 25

<210> 46

<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic Oligonucleotide Probe

<400> 46
ctgagccgtg ggctgcagtc tcgc 24

<210> 47
<211> 45
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic Oligonucleotide Probe

<400> 47
ccgactacga ctggttcttc atcatgcagg atgacacata tgtgc 45

<210> 48
<211> 2822
<212> DNA
<213> Homo Sapien

<400> 48
cgccaccact gcggccaccg ccaatgaaac gcctcccgt cctagtgggtt 50
ttttccactt tgttgaattg ttcctatact caaaattgca ccaagacacc 100
ttgtctccca aatgcaaaat gtgaaatacg caatggaatt gaagcctgct 150
attgcaacat gggattttca ggaaatgggtg tcacaatttg tgaagatgat 200
aatgaatgtg gaaatttaac tcagtcctgt ggcgaaaatg ctaattgcac 250
taacacagaa ggaagttatt attgtatgtg tgtacctggc ttcagatcca 300
gcagtaacca agacagggtt atcactaatg atggaaccgt ctgtatagaa 350
aatgtgaatg caaactgcc a ttagataat gtctgtatag ctgcaaatat 400
taataaaaact ttaacaaaaa tcagatccat aaaagaacct gtggctttgc 450
tacaagaagt ctatagaaat tctgtgacag atctttcacc aacagatata 500
attacatata tagaaatatt agctgaatca tcttcattac taggttacia 550
gaacaacact atctcagcca aggacaccct ttctaactca actcttactg 600
aatttgtaaa aaccgtgaat aattttgttc aaagggatac atttgtagtt 650
tgggacaagt tatctgtgaa tcataggaga acacatctta caaaactcat 700
gcacactgtt gaacaagcta cttaaggat atcccagagc ttccaaaaga 750
ccacagagtt tgatacaaat tcaacggata tagctctcaa agttttcttt 800

ttgattcat ataacatgaa acatattcat cctcatatga atatggatgg 850
 agactacata aatatatttc caaagagaaa agctgcatat gattcaaag 900
 gcaatggtgc agttgcattt ttatattata agagtattgg tcctttgctt 950
 tcatcatctg acaacttctt attgaaacct caaaattatg ataattctga 1000
 agaggaggaa agagtcatat cttcagtaat ttcagttctca atgagctcaa 1050
 acccaccac attatatgaa cttgaaaaaa taacatttac attaagtcac 1100
 cgaaaggcca cagataggta taggagtcta tgtgcatttt ggaattactc 1150
 acctgatacc atgaatggca gctggctctt agagggctgt gagctgacat 1200
 actcaaatga gaccacacc tcatgccgt gtaatcacct gacacatttt 1250
 gcaattttga tgtcctctgg tccttcatt ggtattaaag attataatat 1300
 tcttacaagg atcactcaac taggaataat tatttctactg atttgccttg 1350
 ccatatgcat ttttaccttc tggttcttca gtgaaattca aagcaccagg 1400
 acaacaattc acaaaaatct ttgctgtagc ctatttcttg ctgaacttgt 1450
 ttttcttggt gggatcaata caaatactaa taagctcttc tgttcaatca 1500
 ttgccggact gctacactac ttcttttttag ctgcttttgc atggatgtgc 1550
 attgaaggca tacatctcta tctcattggt gtgggtgtca tctacaacaa 1600
 gggatttttg cacaagaatt tttatatctt tggctatcta agcccagccg 1650
 tggtagttgg attttcggca gcactaggat acagatatta tggcacaacc 1700
 aaagtatggt ggcttagcac cgaaaacaac tttatttgga gttttatagg 1750
 accagcatgc ctaatcattc ttgttaatct cttggctttt ggagtcac 1800
 tatacaaagt ttttcgtcac actgcagggt tgaaaccaga agttagttgc 1850
 ttgagaaca taaggctctg tgcaagagga gccctcgctc ttctgttcct 1900
 tctcggcacc acctggatct ttggggttct ccatgttgtg cacgcatcag 1950
 tggttacagc ttacctctc acagtcagca atgctttcca ggggatgttc 2000
 atttttttat tctgtgtgt tttatctaga aagattcaag aagaatatta 2050
 cagattgttc aaaaatgtcc cctgttgttt tggatgttta aggtaaacat 2100
 agagaatggt ggataattac aactgcacaa aaataaaaaat tccaagctgt 2150
 ggatgaccaa tgtataaaaa tgactcatca aattatccaa ttattaacta 2200
 ctagacaaaa agtattttta atcagttttt ctgtttatgc tataggaact 2250
 gtagataata aggtaaaatt atgtatcata tagatatact atgtttttct 2300

atgtgaaata gttctgtcaa aaatagtatt gcagatattt ggaaagtaat 2350
 tggttttctca ggagtgatat cactgcaccc aaggaaagat tttcttttcta 2400
 acacgagaag tatatgaatg tcctgaagga aaccactggc ttgatatttc 2450
 tgtgactcgt gttgcctttg aaactagtcc cctaccacct cggtaatgag 2500
 ctccattaca gaaagtggaa cataagagaa tgaaggggca gaatatcaaa 2550
 cagtgaaaag ggaatgataa gatgtatttt gaatgaactg ttttttctgt 2600
 agactagctg agaaattggt gacataaaat aaagaattga agaaacacat 2650
 tttaccattt tgtgaattgt tctgaactta aatgtccact aaaacaactt 2700
 agacttctgt ttgctaaatc tgtttctttt tctaatatcc taaaaaaaaa 2750
 aaaaagggtt acctccacaa attgaaaaaa aaaaaaaaaa aaaaaaaaaa 2800
 aaaaaaaaaa aaaaaaaaaa aa 2822

<210> 49
 <211> 690
 <212> PRT
 <213> Homo Sapien

<400> 49
 Met Lys Arg Leu Pro Leu Leu Val Val Phe Ser Thr Leu Leu Asn
 1 5 10 15
 Cys Ser Tyr Thr Gln Asn Cys Thr Lys Thr Pro Cys Leu Pro Asn
 20 25 30
 Ala Lys Cys Glu Ile Arg Asn Gly Ile Glu Ala Cys Tyr Cys Asn
 35 40 45
 Met Gly Phe Ser Gly Asn Gly Val Thr Ile Cys Glu Asp Asp Asn
 50 55 60
 Glu Cys Gly Asn Leu Thr Gln Ser Cys Gly Glu Asn Ala Asn Cys
 65 70 75
 Thr Asn Thr Glu Gly Ser Tyr Tyr Cys Met Cys Val Pro Gly Phe
 80 85 90
 Arg Ser Ser Ser Asn Gln Asp Arg Phe Ile Thr Asn Asp Gly Thr
 95 100 105
 Val Cys Ile Glu Asn Val Asn Ala Asn Cys His Leu Asp Asn Val
 110 115 120
 Cys Ile Ala Ala Asn Ile Asn Lys Thr Leu Thr Lys Ile Arg Ser
 125 130 135
 Ile Lys Glu Pro Val Ala Leu Leu Gln Glu Val Tyr Arg Asn Ser
 140 145 150

Val Thr Asp Leu Ser Pro Thr Asp Ile	Ile Thr Tyr Ile Glu Ile	155	160	165
Leu Ala Glu Ser Ser Ser Leu Leu Gly Tyr Lys Asn Asn Thr Ile		170	175	180
Ser Ala Lys Asp Thr Leu Ser Asn Ser Thr Leu Thr Glu Phe Val		185	190	195
Lys Thr Val Asn Asn Phe Val Gln Arg Asp Thr Phe Val Val Trp		200	205	210
Asp Lys Leu Ser Val Asn His Arg Arg Thr His Leu Thr Lys Leu		215	220	225
Met His Thr Val Glu Gln Ala Thr Leu Arg Ile Ser Gln Ser Phe		230	235	240
Gln Lys Thr Thr Glu Phe Asp Thr Asn Ser Thr Asp Ile Ala Leu		245	250	255
Lys Val Phe Phe Phe Asp Ser Tyr Asn Met Lys His Ile His Pro		260	265	270
His Met Asn Met Asp Gly Asp Tyr Ile Asn Ile Phe Pro Lys Arg		275	280	285
Lys Ala Ala Tyr Asp Ser Asn Gly Asn Val Ala Val Ala Phe Leu		290	295	300
Tyr Tyr Lys Ser Ile Gly Pro Leu Leu Ser Ser Ser Asp Asn Phe		305	310	315
Leu Leu Lys Pro Gln Asn Tyr Asp Asn Ser Glu Glu Glu Glu Arg		320	325	330
Val Ile Ser Ser Val Ile Ser Val Ser Met Ser Ser Asn Pro Pro		335	340	345
Thr Leu Tyr Glu Leu Glu Lys Ile Thr Phe Thr Leu Ser His Arg		350	355	360
Lys Val Thr Asp Arg Tyr Arg Ser Leu Cys Ala Phe Trp Asn Tyr		365	370	375
Ser Pro Asp Thr Met Asn Gly Ser Trp Ser Ser Glu Gly Cys Glu		380	385	390
Leu Thr Tyr Ser Asn Glu Thr His Thr Ser Cys Arg Cys Asn His		395	400	405
Leu Thr His Phe Ala Ile Leu Met Ser Ser Gly Pro Ser Ile Gly		410	415	420
Ile Lys Asp Tyr Asn Ile Leu Thr Arg Ile Thr Gln Leu Gly Ile		425	430	435
Ile Ile Ser Leu Ile Cys Leu Ala Ile Cys Ile Phe Thr Phe Trp		440	445	450

Phe	Phe	Ser	Glu	Ile	Gln	Ser	Thr	Arg	Thr	Thr	Ile	His	Lys	Asn	
				455					460					465	
Leu	Cys	Cys	Ser	Leu	Phe	Leu	Ala	Glu	Leu	Val	Phe	Leu	Val	Gly	
				470					475					480	
Ile	Asn	Thr	Asn	Thr	Asn	Lys	Leu	Phe	Cys	Ser	Ile	Ile	Ala	Gly	
				485					490					495	
Leu	Leu	His	Tyr	Phe	Phe	Leu	Ala	Ala	Phe	Ala	Trp	Met	Cys	Ile	
				500					505					510	
Glu	Gly	Ile	His	Leu	Tyr	Leu	Ile	Val	Val	Gly	Val	Ile	Tyr	Asn	
				515					520					525	
Lys	Gly	Phe	Leu	His	Lys	Asn	Phe	Tyr	Ile	Phe	Gly	Tyr	Leu	Ser	
				530					535					540	
Pro	Ala	Val	Val	Val	Gly	Phe	Ser	Ala	Ala	Leu	Gly	Tyr	Arg	Tyr	
				545					550					555	
Tyr	Gly	Thr	Thr	Lys	Val	Cys	Trp	Leu	Ser	Thr	Glu	Asn	Asn	Phe	
				560					565					570	
Ile	Trp	Ser	Phe	Ile	Gly	Pro	Ala	Cys	Leu	Ile	Ile	Leu	Val	Asn	
				575					580					585	
Leu	Leu	Ala	Phe	Gly	Val	Ile	Ile	Tyr	Lys	Val	Phe	Arg	His	Thr	
				590					595					600	
Ala	Gly	Leu	Lys	Pro	Glu	Val	Ser	Cys	Phe	Glu	Asn	Ile	Arg	Ser	
				605					610					615	
Cys	Ala	Arg	Gly	Ala	Leu	Ala	Leu	Leu	Phe	Leu	Leu	Gly	Thr	Thr	
				620					625					630	
Trp	Ile	Phe	Gly	Val	Leu	His	Val	Val	His	Ala	Ser	Val	Val	Thr	
				635					640					645	
Ala	Tyr	Leu	Phe	Thr	Val	Ser	Asn	Ala	Phe	Gln	Gly	Met	Phe	Ile	
				650					655					660	
Phe	Leu	Phe	Leu	Cys	Val	Leu	Ser	Arg	Lys	Ile	Gln	Glu	Glu	Tyr	
				665					670					675	
Tyr	Arg	Leu	Phe	Lys	Asn	Val	Pro	Cys	Cys	Phe	Gly	Cys	Leu	Arg	
				680					685					690	

<210> 50
 <211> 589
 <212> DNA
 <213> Homo Sapien

<220>
 <221> unsure
 <222> 61
 <223> unknown base

<400> 50
 tggaaacata tcctccctca tatgaatatg gatggagact acataaatat 50
 atttccaaag ngaaaagccg gcatatggat tcaaattggca atgttgacgt 100
 tgcattttta tattataaga gtattgggtcc ctttgctttc atcatctgac 150
 aacttcttat tgaaacctca aaattatgat aattctgaag aggaggaaag 200
 agtcatatct tcagtaattt cagtctcaat gagctcaaac ccacccacat 250
 tatatgaact tgaaaaaata acatttacat taagtcacg aaaggtcaca 300
 gatagggtata ggagtctatg tggcattttg gaatactcac ctgataccat 350
 gaatggcagc tggctctcag agggctgtga gctgacatac tcaaattgaga 400
 cccacacctc atgccgctgt aatcacctga cacattttgc aattttgatg 450
 tcctctgggc cttccattgg tattaaagat tataatatcc ttacaaggat 500
 cactcaacta ggaataatta tttcactgat ttgtcttgcc atatgcattt 550
 ttaccttctg gttcttcagt gaaattcaaa gcaccagga 589

<210> 51
 <211> 20
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic Oligonucleotide Probe

<400> 51
 ggtaatgagc tccattacag 20

<210> 52
 <211> 18
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic Oligonucleotide Probe

<400> 52
 ggagtagaaa gcgcatgg 18

<210> 53
 <211> 22
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic Oligonucleotide Probe

<400> 53
 cacctgatac catgaatggc ag 22

<210> 54

<211> 18
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic Oligonucleotide Probe

 <400> 54
 cgagctcgaa ttaattcg 18

 <210> 55
 <211> 18
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic Oligonucleotide Probe

 <400> 55
 ggatctcctg agctcagg 18

 <210> 56
 <211> 23
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic Oligonucleotide Probe

 <400> 56
 cctagttgag tgatccttgt aag 23

 <210> 57
 <211> 50
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic Oligonucleotide Probe

 <400> 57
 atgagaccca cacctcatgc cgctgtaatc acctgacaca ttttgcaatt 50
 <210> 58
 <211> 2137
 <212> DNA
 <213> Homo Sapien

 <400> 58
 gctcccagcc aagaacctcg gggccgctgc gcggtgggga ggagttcccc 50
 gaaaccgggc cgctaagcga ggcctcctcc tcccgcagat ccgaacggcc 100
 tgggcggggt caccgccggt gggacaagaa gccgccgect gcctgcccgg 150
 gcccggggag ggggctgggg ctggggccgg aggcggggtg tgagtgggtg 200
 tgtgcggggg gcggaggctt gatgcaatcc cgataagaaa tgctcgggtg 250
 tcttgggcac ctaccctggt ggcccgtgaa gcgctactat ataaggctgc 300

cgccccggag ccgccgcgcc gtcagagcag gagcgctgcg tccaggatct 350
 agggccacga ccatcccaac ccggcactca cagccccgca gcgcattccc 400
 gtcgccgccc agcctcccgc acccccatcg ccggagctgc gccgagagcc 450
 ccaggagggt gccatgcgga gcgggtgtgt ggtgggtccac gtatggatcc 500
 tggccggcct ctggctggcc gtggccgggc gccccctcgc cttctcggac 550
 gcggggcccc acgtgcacta cggctggggc gaccccatcc gcctgcggca 600
 cctgtacacc tccggcccc cgggctctc cagctgcttc ctgcgcatcc 650
 gtgccgacgg cgtcgtggac tgcgcgcggg gccagagcgc gcacagtttg 700
 ctggagatca aggcagtcgc tctgcggacc gtggccatca agggcgtgca 750
 cagcgtgcgg tacctctgca tgggcgccga cggcaagatg caggggctgc 800
 ttcagtactc ggaggaagac tgtgctttcg aggaggagat ccgcccagat 850
 ggctacaatg tgtaccgatc cgagaagcac cgcctcccgg tctccctgag 900
 cagtgcctaaa cagcggcagc tgtacaagaa cagaggcttt cttccactct 950
 ctcatttctt gcccatgctg cccatggctc cagaggagcc tgaggacctc 1000
 agggggccact tggaatctga catgttctct tcgccccctgg agaccgacag 1050
 catggaccca tttgggcttg tcaccggact ggaggccgtg aggagtccca 1100
 gctttgagaa gtaactgaga ccatgcccg gctctttcac tgctgccagg 1150
 ggctgtggta cctgcagcgt gggggacgtg cttctacaag aacagtcctg 1200
 agtccacgtt ctgttttagct ttaggaagaa acatctagaa gttgtacata 1250
 ttcagagttt tccattggca gtgccagttt ctagccaata gacttgtctg 1300
 atcataacat tgtaagcctg tagcttgccc agctgctgcc tgggccccca 1350
 ttctgctccc tcgaggttgc tggacaagct gctgcactgt ctcagttctg 1400
 cttgaatacc tccatcgatg gggaactcac ttcctttgga aaaattctta 1450
 tgtcaagctg aaattctcta attttttctc atcacttccc caggagcagc 1500
 cagaagacag gcagtagttt taatttcagg aacaggatgat ccactctgta 1550
 aaacagcagg taaatttcac tcaaccccat gtgggaattg atctatatct 1600
 ctacttccag ggaccatttg cccttcccaa atccctccag gccagaactg 1650
 actggagcag gcatggccca ccaggcttca ggagtagggg aagcctggag 1700
 cccactcca gccctgggac aacttgagaa ttccccctga ggccagttct 1750
 gtcatggatg ctgtcctgag aataacttgc tgtcccggtg tcacctgctt 1800

ccatctccca gccaccagc cctctgcca cctcacatgc ctcccatgg 1850
attggggcct cccaggcccc ccaccttatg tcaacctgca cttcttggtc 1900
aaaaatcagg aaaagaaaag atttgaagac cccaagtctt gtcaataact 1950
tgctgtgtgg aagcagcggg ggaagacctt gaaccctttc cccagcactt 2000
ggttttccaa catgatattt atgagtaatt tattttgata tgtacatctc 2050
ttattttctt acattattta tgccccaaa ttatatatat gtatgtaagt 2100
gagggttggt ttgtatatta aaatggaggt tggttgt 2137

<210> 59
<211> 216
<212> PRT
<213> Homo Sapien

<400> 59
Met Arg Ser Gly Cys Val Val Val His Val Trp Ile Leu Ala Gly
1 5 10 15
Leu Trp Leu Ala Val Ala Gly Arg Pro Leu Ala Phe Ser Asp Ala
20 25 30
Gly Pro His Val His Tyr Gly Trp Gly Asp Pro Ile Arg Leu Arg
35 40 45
His Leu Tyr Thr Ser Gly Pro His Gly Leu Ser Ser Cys Phe Leu
50 55 60
Arg Ile Arg Ala Asp Gly Val Val Asp Cys Ala Arg Gly Gln Ser
65 70 75
Ala His Ser Leu Leu Glu Ile Lys Ala Val Ala Leu Arg Thr Val
80 85 90
Ala Ile Lys Gly Val His Ser Val Arg Tyr Leu Cys Met Gly Ala
95 100 105
Asp Gly Lys Met Gln Gly Leu Leu Gln Tyr Ser Glu Glu Asp Cys
110 115 120
Ala Phe Glu Glu Glu Ile Arg Pro Asp Gly Tyr Asn Val Tyr Arg
125 130 135
Ser Glu Lys His Arg Leu Pro Val Ser Leu Ser Ser Ala Lys Gln
140 145 150
Arg Gln Leu Tyr Lys Asn Arg Gly Phe Leu Pro Leu Ser His Phe
155 160 165
Leu Pro Met Leu Pro Met Val Pro Glu Glu Pro Glu Asp Leu Arg
170 175 180
Gly His Leu Glu Ser Asp Met Phe Ser Ser Pro Leu Glu Thr Asp
185 190 195

Ser Met Asp Pro Phe Gly Leu Val Thr Gly Leu Glu Ala Val Arg
200 205 210

Ser Pro Ser Phe Glu Lys
215

<210> 60
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic Oligonucleotide Probe

<400> 60
atccgcccag atggctacaa tgtgta 26

<210> 61
<211> 42
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic Oligonucleotide Probe

<400> 61
gcctcccggg ctccctgagc agtgccaaac agcggcagtg ta 42

<210> 62
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic Oligonucleotide Probe

<400> 62
ccagtccggg gacaagccca aa 22

<210> 63
<211> 1295
<212> DNA
<213> Homo Sapien

<400> 63
cccagaagtt caagggcccc cggcctcctg cgctcctgcc gccgggaccc 50
tcgacctcct cagagcagcc ggctgccgcc ccgggaagat ggcgaggagg 100
agccgccacc gcctcctcct gctgctgctg cgctacctgg tggtcgccct 150
gggctatcat aaggcctatg ggttttctgc cccaaaagac caacaagtag 200
tcacagcagt agagtaccaa gaggtatatt tagcctgcaa aaccccaaag 250
aagactgttt cctccagatt agagtgggaag aaactgggtc ggagtgtctc 300
ctttgtctac tatcaacaga ctcttcaagg tgattttaaa aatcgagctg 350
agatgataga tttcaatatc cggatcaaaa atgtgacaag aagtgatgcg 400

gggaaatatc gttgtgaagt tagtgcccca tctgagcaag gccaaaacct 450
 ggaagaggat acagtcactc tggaagtatt agtggctcca gcagttccat 500
 catgtgaagt accctcttct gctctgagtg gaactgtggt agagctacga 550
 tgtcaagaca aagaaggga tccagctcct gaatacacat ggtttaagga 600
 tggcatccgt ttgctagaaa atcccagact tggctcccaa agcaccaaca 650
 gctcatacac aatgaatata aaaactggaa ctctgcaatt taatactgtt 700
 tccaaactgg aactggaga atattcctgt gaagcccgca attctgttgg 750
 atatcgcagg tgcctggga aacgaatgca agtagatgat ctcaacataa 800
 gtggcatcat agcagccgta gtagttgtgg ccttagtgat ttccgtttgt 850
 ggccttggtg tatgctatgc tcagaggaaa ggctactttt caaaagaaac 900
 ctccttccag aagagtaatt cttcatctaa agccacgaca atgagtgaac 950
 atgtgcagtg gtcacgcct gtaatcccag cactttggaa ggccgcggcg 1000
 ggcggatcac gaggtcagga gttctagacc agtctggcca atatggtgaa 1050
 accccatctc tactaaaata caaaaattag ctgggcatgg tggcatgtgc 1100
 ctgcagttcc agctgcttgg gagacaggag aatcacttga acccgaggag 1150
 cggagggttg agtgagctga gatcacgcca ctgcagtcca gcctgggtaa 1200
 cagagcaaga ttccatctca aaaaataaaa taaataaata aataaatact 1250
 ggtttttacc tgtagaattc ttacaataaa tatagcttga tattc 1295

<210> 64
 <211> 312
 <212> PRT
 <213> Homo Sapien

<400> 64
 Met Ala Arg Arg Ser Arg His Arg Leu Leu Leu Leu Leu Leu Arg
 1 5 10 15
 Tyr Leu Val Val Ala Leu Gly Tyr His Lys Ala Tyr Gly Phe Ser
 20 25 30
 Ala Pro Lys Asp Gln Gln Val Val Thr Ala Val Glu Tyr Gln Glu
 35 40 45
 Ala Ile Leu Ala Cys Lys Thr Pro Lys Lys Thr Val Ser Ser Arg
 50 55 60
 Leu Glu Trp Lys Lys Leu Gly Arg Ser Val Ser Phe Val Tyr Tyr
 65 70 75
 Gln Gln Thr Leu Gln Gly Asp Phe Lys Asn Arg Ala Glu Met Ile

80					85					90				
Asp	Phe	Asn	Ile	Arg	Ile	Lys	Asn	Val	Thr	Arg	Ser	Asp	Ala	Gly
				95					100					105
Lys	Tyr	Arg	Cys	Glu	Val	Ser	Ala	Pro	Ser	Glu	Gln	Gly	Gln	Asn
				110					115					120
Leu	Glu	Glu	Asp	Thr	Val	Thr	Leu	Glu	Val	Leu	Val	Ala	Pro	Ala
				125					130					135
Val	Pro	Ser	Cys	Glu	Val	Pro	Ser	Ser	Ala	Leu	Ser	Gly	Thr	Val
				140					145					150
Val	Glu	Leu	Arg	Cys	Gln	Asp	Lys	Glu	Gly	Asn	Pro	Ala	Pro	Glu
				155					160					165
Tyr	Thr	Trp	Phe	Lys	Asp	Gly	Ile	Arg	Leu	Leu	Glu	Asn	Pro	Arg
				170					175					180
Leu	Gly	Ser	Gln	Ser	Thr	Asn	Ser	Ser	Tyr	Thr	Met	Asn	Thr	Lys
				185					190					195
Thr	Gly	Thr	Leu	Gln	Phe	Asn	Thr	Val	Ser	Lys	Leu	Asp	Thr	Gly
				200					205					210
Glu	Tyr	Ser	Cys	Glu	Ala	Arg	Asn	Ser	Val	Gly	Tyr	Arg	Arg	Cys
				215					220					225
Pro	Gly	Lys	Arg	Met	Gln	Val	Asp	Asp	Leu	Asn	Ile	Ser	Gly	Ile
				230					235					240
Ile	Ala	Ala	Val	Val	Val	Val	Ala	Leu	Val	Ile	Ser	Val	Cys	Gly
				245					250					255
Leu	Gly	Val	Cys	Tyr	Ala	Gln	Arg	Lys	Gly	Tyr	Phe	Ser	Lys	Glu
				260					265					270
Thr	Ser	Phe	Gln	Lys	Ser	Asn	Ser	Ser	Ser	Lys	Ala	Thr	Thr	Met
				275					280					285
Ser	Glu	Asn	Val	Gln	Trp	Leu	Thr	Pro	Val	Ile	Pro	Ala	Leu	Trp
				290					295					300
Lys	Ala	Ala	Ala	Gly	Gly	Ser	Arg	Gly	Gln	Glu	Phe			
				305					310					

<210> 65

<211> 22

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Oligonucleotide Probe

<400> 65

atcgttgtga agttagtgcc cc 22

<210> 66

<211> 23
 <212> DNA
 <213> Artificial Sequence
 <220>
 <223> Synthetic Oligonucleotide Probe

<400> 66
 acctgcgata tccaacagaa ttg 23

<210> 67
 <211> 48
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic Oligonucleotide Probe

<400> 67
 ggaagaggat acagtcactc tggaagtatt agtggctcca gcagttcc 48

<210> 68
 <211> 2639
 <212> DNA
 <213> Homo Sapien

<400> 68
 gacatcggag gtgggctagc actgaaactg cttttcaaga cgaggaagag 50
 gaggagaaag agaaagaaga ggaagatggt gggcaacatt tatttaacat 100
 gctccacagc ccggaccctg gcatcatgct gctattcctg caaatactga 150
 agaagcatgg gatttaaata ttttacttct aaataaatga attactcaat 200
 ctctatgac catctataca tactccacct tcaaaaagta catcaatatt 250
 atatcattaa ggaaatagta accttctctt ctccaatatg catgacattt 300
 ttggacaatg caattgtggc actggcactt atttcagtga agaaaaactt 350
 tgtggttcta tggcattcat catttgacaa atgcaagcat cttccttata 400
 aatcagctcc tattgaactt actagcactg actgtggaat ccttaagggc 450
 ccattacatt tctgaagaag aaagctaaga tgaaggacat gccactccga 500
 attcatgtgc tacttggcct agctatcact acactagtag aagctgtaga 550
 taaaaaagtg gattgtccac gggtatgtac gtgtgaaatc aggccttggt 600
 ttacaccag atccatttat atggaagcat ctacagtgga ttgtaatgat 650
 ttaggtcttt taactttccc agccagattg ccagctaaca cacagattct 700
 tctctacag actaacaata ttgcaaaaat tgaatactcc acagactttc 750
 cagtaaacct tactggcctg gatttatctc aaaacaattt atcttcagtc 800
 accaatatta atgtaaaaaa gatgcctcag ctcctttctg tgtacctaga 850

ggaaaacaaa cttactgaac tgcttgaaaa atgtctgtcc gaactgagca 900
acttacaaga actctatatt aatcacaact tgctttctac aatttcacct 950
ggagccttta ttggcctaca taatcttctt cgacttcac tcaattcaaa 1000
tagattgcag atgatcaaca gtaagtgggt tgatgctctt ccaaactctag 1050
agattctgat gattggggaa aatccaatta tcagaatcaa agacatgaac 1100
tttaagcctc ttatcaatct tcgcagcctg gttatagctg gtataaacct 1150
cacagaaata ccagataacg ccttggttgg actggaaaac ttagaaagca 1200
tctcttttta cgataacagg cttattaaag taccatgt tgctcttcaa 1250
aaagttgtaa atctcaaatt tttggatcta aataaaaatc ctattaatag 1300
aatacgaagg ggtgatttta gcaatatgct acacttaaaa gagttgggga 1350
taaataatat gcctgagctg atttccatcg atagtcttgc tgtggataac 1400
ctgccagatt taagaaaaat agaagctact aacaacccta gattgtctta 1450
cattcacccc aatgcatttt tcagactccc caagctggaa tcactcatgc 1500
tgaacagcaa tgctctcagt gccctgtacc atggtaccat tgagtctctg 1550
ccaaacctca aggaaatcag catacacagt aaccccatca ggtgtgactg 1600
tgtcatccgt tggatgaaca tgaacaaaac caacattcga ttcattggagc 1650
cagattcact gttttgctg gaccacctg aattccaagg tcagaatggt 1700
cggcaagtgc atttcaggga catgatggaa atttgtctcc ctcttatagc 1750
tcttgagagc tttccttcta atctaaatgt agaagctggg agctatgttt 1800
cctttcactg tagagctact gcagaaccac agcctgaaat ctactggata 1850
acaccttctg gtcaaaaact cttgcctaata accctgacag acaagttcta 1900
tgtccattct gagggaaacac tagatataaa tggcgtaact cccaaagaag 1950
ggggtttata tacttgtata gcaactaacc tagttggcgc tgacttgaag 2000
tctgttatga tcaaagtggg tggatctttt ccacaagata acaatggctc 2050
tttgaatatt aaaataagag atattcaggc caattcagtt ttggtgtcct 2100
ggaaagcaag ttctaaaatt ctcaaatcta gtgttaaatt gacagccttt 2150
gtcaagactg aaaattctca tgctgcgcaa agtgctcgaa taccatctga 2200
tgtcaaggta tataatctta ctcatctgaa tccatcaact gagtataaaa 2250
tttgtattga tattcccacc atctatcaga aaaacagaaa aaaatgtgta 2300

aatgtcacca ccaaaggttt gcaccctgat caaaaagagt atgaaaagaa 2350
 taataccaca acacttatgg cctgtcttgg aggccttctg gggattattg 2400
 gtgtgatatg tcttatcagc tgcctctctc cagaaatgaa ctgtgatggg 2450
 ggacacagct atgtgaggaa ttacttacag aaaccaacct ttgcattagg 2500
 tgagctttat cctcctctga taaatctctg ggaagcagga aaagaaaaaa 2550
 gtacatcact gaaagtaaaa gcaactgtta taggtttacc aacaaatatg 2600
 tcctaaaaaac caccaaggaa acctactcca aaaatgaac 2639

<210> 69
 <211> 708
 <212> PRT
 <213> Homo Sapien

<400> 69
 Met Lys Asp Met Pro Leu Arg Ile His Val Leu Leu Gly Leu Ala
 1 5 10 15
 Ile Thr Thr Leu Val Gln Ala Val Asp Lys Lys Val Asp Cys Pro
 20 25 30
 Arg Leu Cys Thr Cys Glu Ile Arg Pro Trp Phe Thr Pro Arg Ser
 35 40 45
 Ile Tyr Met Glu Ala Ser Thr Val Asp Cys Asn Asp Leu Gly Leu
 50 55 60
 Leu Thr Phe Pro Ala Arg Leu Pro Ala Asn Thr Gln Ile Leu Leu
 65 70 75
 Leu Gln Thr Asn Asn Ile Ala Lys Ile Glu Tyr Ser Thr Asp Phe
 80 85 90
 Pro Val Asn Leu Thr Gly Leu Asp Leu Ser Gln Asn Asn Leu Ser
 95 100 105
 Ser Val Thr Asn Ile Asn Val Lys Lys Met Pro Gln Leu Leu Ser
 110 115 120
 Val Tyr Leu Glu Glu Asn Lys Leu Thr Glu Leu Pro Glu Lys Cys
 125 130 135
 Leu Ser Glu Leu Ser Asn Leu Gln Glu Leu Tyr Ile Asn His Asn
 140 145 150
 Leu Leu Ser Thr Ile Ser Pro Gly Ala Phe Ile Gly Leu His Asn
 155 160 165
 Leu Leu Arg Leu His Leu Asn Ser Asn Arg Leu Gln Met Ile Asn
 170 175 180
 Ser Lys Trp Phe Asp Ala Leu Pro Asn Leu Glu Ile Leu Met Ile
 185 190 195
 Gly Glu Asn Pro Ile Ile Arg Ile Lys Asp Met Asn Phe Lys Pro

	200		205		210
Leu Ile Asn Leu	Arg Ser Leu Val Ile	Ala Gly Ile Asn Leu Thr			
	215		220		225
Glu Ile Pro Asp	Asn Ala Leu Val Gly	Leu Glu Asn Leu Glu Ser			
	230		235		240
Ile Ser Phe Tyr	Asp Asn Arg Leu Ile	Lys Val Pro His Val Ala			
	245		250		255
Leu Gln Lys Val	Val Asn Leu Lys Phe	Leu Asp Leu Asn Lys Asn			
	260		265		270
Pro Ile Asn Arg	Ile Arg Arg Gly Asp	Phe Ser Asn Met Leu His			
	275		280		285
Leu Lys Glu Leu	Gly Ile Asn Asn Met	Pro Glu Leu Ile Ser Ile			
	290		295		300
Asp Ser Leu Ala	Val Asp Asn Leu Pro	Asp Leu Arg Lys Ile Glu			
	305		310		315
Ala Thr Asn Asn	Pro Arg Leu Ser Tyr	Ile His Pro Asn Ala Phe			
	320		325		330
Phe Arg Leu Pro	Lys Leu Glu Ser Leu	Met Leu Asn Ser Asn Ala			
	335		340		345
Leu Ser Ala Leu	Tyr His Gly Thr Ile	Glu Ser Leu Pro Asn Leu			
	350		355		360
Lys Glu Ile Ser	Ile His Ser Asn Pro	Ile Arg Cys Asp Cys Val			
	365		370		375
Ile Arg Trp Met	Asn Met Asn Lys Thr	Asn Ile Arg Phe Met Glu			
	380		385		390
Pro Asp Ser Leu	Phe Cys Val Asp Pro	Pro Glu Phe Gln Gly Gln			
	395		400		405
Asn Val Arg Gln	Val His Phe Arg Asp	Met Met Glu Ile Cys Leu			
	410		415		420
Pro Leu Ile Ala	Pro Glu Ser Phe Pro	Ser Asn Leu Asn Val Glu			
	425		430		435
Ala Gly Ser Tyr	Val Ser Phe His Cys	Arg Ala Thr Ala Glu Pro			
	440		445		450
Gln Pro Glu Ile	Tyr Trp Ile Thr Pro	Ser Gly Gln Lys Leu Leu			
	455		460		465
Pro Asn Thr Leu	Thr Asp Lys Phe Tyr	Val His Ser Glu Gly Thr			
	470		475		480
Leu Asp Ile Asn	Gly Val Thr Pro Lys	Glu Gly Gly Leu Tyr Thr			
	485		490		495

Cys Ile Ala Thr	Asn Leu Val Gly Ala	Asp Leu Lys Ser Val	Met
	500	505	510
Ile Lys Val Asp	Gly Ser Phe Pro Gln	Asp Asn Asn Gly Ser	Leu
	515	520	525
Asn Ile Lys Ile	Arg Asp Ile Gln Ala	Asn Ser Val Leu Val	Ser
	530	535	540
Trp Lys Ala Ser	Ser Lys Ile Leu Lys	Ser Ser Val Lys Trp	Thr
	545	550	555
Ala Phe Val Lys	Thr Glu Asn Ser His	Ala Ala Gln Ser Ala	Arg
	560	565	570
Ile Pro Ser Asp	Val Lys Val Tyr Asn	Leu Thr His Leu Asn	Pro
	575	580	585
Ser Thr Glu Tyr	Lys Ile Cys Ile Asp	Ile Pro Thr Ile Tyr	Gln
	590	595	600
Lys Asn Arg Lys	Lys Cys Val Asn Val	Thr Thr Lys Gly Leu	His
	605	610	615
Pro Asp Gln Lys	Glu Tyr Glu Lys Asn	Asn Thr Thr Thr Leu	Met
	620	625	630
Ala Cys Leu Gly	Gly Leu Leu Gly Ile	Ile Gly Val Ile Cys	Leu
	635	640	645
Ile Ser Cys Leu	Ser Pro Glu Met Asn	Cys Asp Gly Gly His	Ser
	650	655	660
Tyr Val Arg Asn	Tyr Leu Gln Lys Pro	Thr Phe Ala Leu Gly	Glu
	665	670	675
Leu Tyr Pro Pro	Leu Ile Asn Leu Trp	Glu Ala Gly Lys Glu	Lys
	680	685	690
Ser Thr Ser Leu	Lys Val Lys Ala Thr	Val Ile Gly Leu Pro	Thr
	695	700	705
Asn Met Ser			

<210> 70
 <211> 1305
 <212> DNA
 <213> Homo Sapien

<400> 70
 gcccgaggact ggcgcaaggt gcccaagcaa ggaaagaaat aatgaagaga 50
 cacatgtggt agctgcagcc ttttgaaaca cgcaagaagg aaatcaatag 100
 tgtggacagg gctggaacct ttaccacgct tggtggagta gatgaggaat 150
 gggctcgtga ttatgctgac attccagcat gaatctggta gacctgtggt 200

taacccgttc cctctccatg tgtctcctcc tacaaagttt tgttcttatg 250
 atactgtgct ttcattctgc cagtatgtgt cccaagggct gtctttgttc 300
 ttctcttggg gggttaaatg tcacctgtag caatgcaaat ctcaaggaaa 350
 tacctagaga tcttctcct gaaacagtct tactgtatct ggactccaat 400
 cagatcacat ctattcccaa tgaaattttt aaggacctcc atcaactgag 450
 agttctcaac ctgtccaaaa atggcattga gtttatcgat gagcatgcct 500
 tcaaaggagt agctgaaacc ttgcagactc tggacttgtc cgacaatcgg 550
 attcaaagtg tgcacaaaaa tgccttcaat aacctgaagg ccagggccag 600
 aattgccaac aacccctggc actgcgactg tactctacag caagttctga 650
 ggagcatggc gtccaatcat gagacagccc acaacgtgat ctgtaaaacg 700
 tccgtgttgg atgaacatgc tggcagacca ttctcaatg ctgccaacga 750
 cgctgacctt tgtaacctcc ctaaaaaaac taccgattat gccatgctgg 800
 tcaccatggt tggttggttc actatggtga tctcatatgt ggtatattat 850
 gtgaggcaaa atcaggagga tgcccggaga cacctcgaat acttgaaatc 900
 cctgccaaagc aggcagaaga aagcagatga acctgatgat attagcactg 950
 tggatatagtg tccaaactga ctgtcattga gaaagaaaga aagtagtttg 1000
 cgattgcagt agaaataagt ggtttacttc tcccatccat tgtaaacatt 1050
 tgaaactttg tatttcagtt ttttttgaat tatgccactg ctgaactttt 1100
 aacaaacact acaacataaa taatttgagt ttaggtgatc cacccttaa 1150
 ttgtaccccc gatggtatat ttctgagtaa gctactatct gaacattagt 1200
 tagatccatc tcaactattta ataatgaaat ttattttttt aatttaaaag 1250
 caaataaaaag cttaactttg aaccatggga aaaaaaaaaa aaaaaaaaaa 1300
 aaaca 1305

<210> 71
 <211> 259
 <212> PRT
 <213> Homo Sapien

<400> 71
 Met Asn Leu Val Asp Leu Trp Leu Thr Arg Ser Leu Ser Met Cys
 1 5 10 15
 Leu Leu Leu Gln Ser Phe Val Leu Met Ile Leu Cys Phe His Ser
 20 25 30
 Ala Ser Met Cys Pro Lys Gly Cys Leu Cys Ser Ser Ser Gly Gly
 35 40 45

Leu	Asn	Val	Thr	Cys	Ser	Asn	Ala	Asn	Leu	Lys	Glu	Ile	Pro	Arg		50	55	60
Asp	Leu	Pro	Pro	Glu	Thr	Val	Leu	Leu	Tyr	Leu	Asp	Ser	Asn	Gln		65	70	75
Ile	Thr	Ser	Ile	Pro	Asn	Glu	Ile	Phe	Lys	Asp	Leu	His	Gln	Leu		80	85	90
Arg	Val	Leu	Asn	Leu	Ser	Lys	Asn	Gly	Ile	Glu	Phe	Ile	Asp	Glu		95	100	105
His	Ala	Phe	Lys	Gly	Val	Ala	Glu	Thr	Leu	Gln	Thr	Leu	Asp	Leu		110	115	120
Ser	Asp	Asn	Arg	Ile	Gln	Ser	Val	His	Lys	Asn	Ala	Phe	Asn	Asn		125	130	135
Leu	Lys	Ala	Arg	Ala	Arg	Ile	Ala	Asn	Asn	Pro	Trp	His	Cys	Asp		140	145	150
Cys	Thr	Leu	Gln	Gln	Val	Leu	Arg	Ser	Met	Ala	Ser	Asn	His	Glu		155	160	165
Thr	Ala	His	Asn	Val	Ile	Cys	Lys	Thr	Ser	Val	Leu	Asp	Glu	His		170	175	180
Ala	Gly	Arg	Pro	Phe	Leu	Asn	Ala	Ala	Asn	Asp	Ala	Asp	Leu	Cys		185	190	195
Asn	Leu	Pro	Lys	Lys	Thr	Thr	Asp	Tyr	Ala	Met	Leu	Val	Thr	Met		200	205	210
Phe	Gly	Trp	Phe	Thr	Met	Val	Ile	Ser	Tyr	Val	Val	Tyr	Tyr	Val		215	220	225
Arg	Gln	Asn	Gln	Glu	Asp	Ala	Arg	Arg	His	Leu	Glu	Tyr	Leu	Lys		230	235	240
Ser	Leu	Pro	Ser	Arg	Gln	Lys	Lys	Ala	Asp	Glu	Pro	Asp	Asp	Ile		245	250	255
Ser	Thr	Val	Val															

<210> 72
 <211> 2290
 <212> DNA
 <213> Homo Sapien

<400> 72
 accgagccga gcggaccgaa ggcgcgcccc agatgcaggt gagcaagagg 50
 atgctggcgg ggggcgtgag gagcatgccc agccccctcc tggcctgctg 100
 gcagcccatc ctctgtctgg tgctgggctc agtgctgtca ggctcggcca 150
 cgggctgccc gccccgctgc gactgctccg cccaggaccg cgctgtgctg 200

tgccaccgca agtgccttgt ggcagtcctc gagggcatcc ccaccgagac 250
 gcgcctgctg gacctaggca agaaccgcat caaaacgctc aaccaggacg 300
 agttcgccag cttcccgac ctggaggagc tggagctcaa cgagaacatc 350
 gtgagcgccg tggagcccg cgcttcaac aacctcttca acctccggac 400
 gctgggtctc cgagcaacc gcctgaagct catcccgcta ggcgtcttca 450
 ctggcctcag caacctgacc aagcaggaca tcagcgagaa caagatcggt 500
 atcctactgg actacatgtt tcaggacctg tacaacctca agtcactgga 550
 gggtggcgac aatgacctcg tctacatctc tcaccgcgcc ttcagcggcc 600
 tcaacagcct ggagcagctg acgctggaga aatgcaacct gacctccatc 650
 cccaccgagg cgctgtccca cctgcacggc ctcatcgctc tgaggctccg 700
 gcacctcaac atcaatgcca tccgggacta ctcttcaag aggctgtacc 750
 gactcaaggc cttggagatc tccactggc cctacttga caccatgaca 800
 cccaactgcc tctacggcct caacctgacg tccctgtcca tcacacactg 850
 caatctgacc gctgtgcct acctggcgt ccgccaccta gtctatctcc 900
 gcttctcaa cctctctac aaccccatca gcaccattga gggctccatg 950
 ttgcatgagc tgctccggct gcaggagatc cagctggtgg gcgggcagct 1000
 ggccgtgggtg gagccctatg ccttcgcgg cctcaactac ctgcgcgtgc 1050
 tcaatgtctc tggcaaccag ctgaccacac tggaggaatc agtcttcac 1100
 tcggtgggca acctggagac actcatctg gactccaacc cgctggcctg 1150
 cgactgtcgg ctctgtggg tgttcggcg ccgctggcg ctcaacttca 1200
 accggcagca gccacgtgc gccacgccc agtttgtcca gggcaaggag 1250
 ttcaaggact tccctgatgt gctactgcc aactacttca cctgccgccg 1300
 cgcccgcatc cgggaccgca aggccagca ggtgtttgtg gacgagggcc 1350
 acacgggtgca gtttgtgtgc cgggccgatg gcgacccgcc gcccgccatc 1400
 ctctggctct caccgaaa gcacctggtc tcagccaaga gcaatgggcg 1450
 gctcacagtc ttccctgatg gcacgctgga ggtgcgctac gccaggtac 1500
 aggacaacgg cacgtacctg tgcacgcgg ccaacgcggg cggcaacgac 1550
 tccatgcccg cccacctgca tgtgcgcagc tactcgccc actggcccca 1600
 tcagcccaac aagaccttcg ctttcatctc caaccagccg ggcgagggag 1650
 aggccaacag caccgcgcc actgtgcctt tcccttcga catcaagacc 1700

ctcatcatcg ccaccaccat gggcttcacg tctttcctgg gcgtcgctct 1750
 cttctgcctg gtgctgctgt ttctctggag ccggggcaag ggcaacacaa 1800
 agcacaacat cgagatcgag tatgtgcccc gaaagtcgga cgcaggcatc 1850
 agctccgccc acgcgccccg caagttcaac atgaagatga tatgaggccg 1900
 gggcgggggg cagggacccc cgggcggccg ggcaggggaa ggggcctggt 1950
 cgccacctgc tcaacttcca gtccttccca cctcctccct acccttctac 2000
 acacgttctc tttctccctc ccgcctccgt cccctgctgc cccccgccag 2050
 ccttcaccac ctgcctcctt tctaccagga cctcagaagc ccagacctgg 2100
 ggacccccacc tacacagggg cattgacaga ctggagttga aagccgacga 2150
 accgacacgc ggcagagtca ataattcaat aaaaaagtta cgaactttct 2200
 ctgtaacttg ggtttcaata attatggatt tttatgaaaa cttgaaataa 2250
 taaaaagaga aaaaaactaa aaaaaaaaaa aaaaaaaaaa 2290

<210> 73
 <211> 620
 <212> PRT
 <213> Homo Sapien

<400> 73
 Met Gln Val Ser Lys Arg Met Leu Ala Gly Gly Val Arg Ser Met
 1 5 10 15
 Pro Ser Pro Leu Leu Ala Cys Trp Gln Pro Ile Leu Leu Leu Val
 20 25 30
 Leu Gly Ser Val Leu Ser Gly Ser Ala Thr Gly Cys Pro Pro Arg
 35 40 45
 Cys Glu Cys Ser Ala Gln Asp Arg Ala Val Leu Cys His Arg Lys
 50 55 60
 Cys Phe Val Ala Val Pro Glu Gly Ile Pro Thr Glu Thr Arg Leu
 65 70 75
 Leu Asp Leu Gly Lys Asn Arg Ile Lys Thr Leu Asn Gln Asp Glu
 80 85 90
 Phe Ala Ser Phe Pro His Leu Glu Glu Leu Glu Leu Asn Glu Asn
 95 100 105
 Ile Val Ser Ala Val Glu Pro Gly Ala Phe Asn Asn Leu Phe Asn
 110 115 120
 Leu Arg Thr Leu Gly Leu Arg Ser Asn Arg Leu Lys Leu Ile Pro
 125 130 135
 Leu Gly Val Phe Thr Gly Leu Ser Asn Leu Thr Lys Gln Asp Ile
 140 145 150

Ser	Glu	Asn	Lys	Ile	Val	Ile	Leu	Leu	Asp	Tyr	Met	Phe	Gln	Asp	
				155					160					165	
Leu	Tyr	Asn	Leu	Lys	Ser	Leu	Glu	Val	Gly	Asp	Asn	Asp	Leu	Val	
				170					175					180	
Tyr	Ile	Ser	His	Arg	Ala	Phe	Ser	Gly	Leu	Asn	Ser	Leu	Glu	Gln	
				185					190					195	
Leu	Thr	Leu	Glu	Lys	Cys	Asn	Leu	Thr	Ser	Ile	Pro	Thr	Glu	Ala	
				200					205					210	
Leu	Ser	His	Leu	His	Gly	Leu	Ile	Val	Leu	Arg	Leu	Arg	His	Leu	
				215					220					225	
Asn	Ile	Asn	Ala	Ile	Arg	Asp	Tyr	Ser	Phe	Lys	Arg	Leu	Tyr	Arg	
				230					235					240	
Leu	Lys	Val	Leu	Glu	Ile	Ser	His	Trp	Pro	Tyr	Leu	Asp	Thr	Met	
				245					250					255	
Thr	Pro	Asn	Cys	Leu	Tyr	Gly	Leu	Asn	Leu	Thr	Ser	Leu	Ser	Ile	
				260					265					270	
Thr	His	Cys	Asn	Leu	Thr	Ala	Val	Pro	Tyr	Leu	Ala	Val	Arg	His	
				275					280					285	
Leu	Val	Tyr	Leu	Arg	Phe	Leu	Asn	Leu	Ser	Tyr	Asn	Pro	Ile	Ser	
				290					295					300	
Thr	Ile	Glu	Gly	Ser	Met	Leu	His	Glu	Leu	Leu	Arg	Leu	Gln	Glu	
				305					310					315	
Ile	Gln	Leu	Val	Gly	Gly	Gln	Leu	Ala	Val	Val	Glu	Pro	Tyr	Ala	
				320					325					330	
Phe	Arg	Gly	Leu	Asn	Tyr	Leu	Arg	Val	Leu	Asn	Val	Ser	Gly	Asn	
				335					340					345	
Gln	Leu	Thr	Thr	Leu	Glu	Glu	Ser	Val	Phe	His	Ser	Val	Gly	Asn	
				350					355					360	
Leu	Glu	Thr	Leu	Ile	Leu	Asp	Ser	Asn	Pro	Leu	Ala	Cys	Asp	Cys	
				365					370					375	
Arg	Leu	Leu	Trp	Val	Phe	Arg	Arg	Arg	Trp	Arg	Leu	Asn	Phe	Asn	
				380					385					390	
Arg	Gln	Gln	Pro	Thr	Cys	Ala	Thr	Pro	Glu	Phe	Val	Gln	Gly	Lys	
				395					400					405	
Glu	Phe	Lys	Asp	Phe	Pro	Asp	Val	Leu	Leu	Pro	Asn	Tyr	Phe	Thr	
				410					415					420	
Cys	Arg	Arg	Ala	Arg	Ile	Arg	Asp	Arg	Lys	Ala	Gln	Gln	Val	Phe	
				425					430					435	
Val	Asp	Glu	Gly	His	Thr	Val	Gln	Phe	Val	Cys	Arg	Ala	Asp	Gly	
				440					445					450	

Asp	Pro	Pro	Pro	Ala	Ile	Leu	Trp	Leu	Ser	Pro	Arg	Lys	His	Leu
				455					460					465
Val	Ser	Ala	Lys	Ser	Asn	Gly	Arg	Leu	Thr	Val	Phe	Pro	Asp	Gly
				470					475					480
Thr	Leu	Glu	Val	Arg	Tyr	Ala	Gln	Val	Gln	Asp	Asn	Gly	Thr	Tyr
				485					490					495
Leu	Cys	Ile	Ala	Ala	Asn	Ala	Gly	Gly	Asn	Asp	Ser	Met	Pro	Ala
				500					505					510
His	Leu	His	Val	Arg	Ser	Tyr	Ser	Pro	Asp	Trp	Pro	His	Gln	Pro
				515					520					525
Asn	Lys	Thr	Phe	Ala	Phe	Ile	Ser	Asn	Gln	Pro	Gly	Glu	Gly	Glu
				530					535					540
Ala	Asn	Ser	Thr	Arg	Ala	Thr	Val	Pro	Phe	Pro	Phe	Asp	Ile	Lys
				545					550					555
Thr	Leu	Ile	Ile	Ala	Thr	Thr	Met	Gly	Phe	Ile	Ser	Phe	Leu	Gly
				560					565					570
Val	Val	Leu	Phe	Cys	Leu	Val	Leu	Leu	Phe	Leu	Trp	Ser	Arg	Gly
				575					580					585
Lys	Gly	Asn	Thr	Lys	His	Asn	Ile	Glu	Ile	Glu	Tyr	Val	Pro	Arg
				590					595					600
Lys	Ser	Asp	Ala	Gly	Ile	Ser	Ser	Ala	Asp	Ala	Pro	Arg	Lys	Phe
				605					610					615
Asn	Met	Lys	Met	Ile										
				620										

<210> 74
 <211> 22
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic Oligonucleotide Probe

<400> 74
 tcacctggag cctttattgg cc 22

<210> 75
 <211> 23
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic Oligonucleotide Probe

<400> 75
 ataccagcta taaccaggct gcg 23

<210> 76
 <211> 52
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic Oligonucleotide Probe

 <400> 76
 caacagtaag tggtttgatg ctcttccaaa tctagagatt ctgatgattg 50

 gg 52

 <210> 77
 <211> 22
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic Oligonucleotide Probe

 <400> 77
 ccatgtgtct cctcctacaa ag 22

 <210> 78
 <211> 23
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic Oligonucleotide Probe

 <400> 78
 gggaaatagat gtgatctgat tgg 23

 <210> 79
 <211> 50
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic Oligonucleotide Probe

 <400> 79
 cacctgtagc aatgcaaadc tcaaggaaat acctagagat cttcctcctg 50

 <210> 80
 <211> 22
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic Oligonucleotide Probe

 <400> 80
 agcaaccgcc tgaagctcat cc 22

 <210> 81
 <211> 24

<212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic Oligonucleotide Probe

 <400> 81
 aaggcgcggt gaaagatgta gacg 24

 <210> 82
 <211> 50
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic Oligonucleotide Probe

 <400> 82
 gactacatgt ttcaggacct gtacaacctc aagtcactgg aggttggcga 50

 <210> 83
 <211> 1685
 <212> DNA
 <213> Homo Sapien

 <400> 83
 cccacgcgctc cgcacctcgg ccccgggctc cgaagcggct cgggggccc 50
 ctttcggtca acatcgtagt ccacccccctc cccatcccca gccccgggg 100
 attcaggctc gccagcgcgc agccaggag cgggccggga agcgcgatgg 150
 gggccccagc cgctcgcctc ctgctcctgc tctgctgtt cgctgctgc 200
 tgggcgcccg gcggggccaa cctctcccag gacgacagcc agccctggac 250
 atctgatgaa acagtgggtg ctggtggcac cgtggtgctc aagtgccaa 300
 tgaaagatca cgaggactca tccctgcaat ggtctaacc tgctcagcag 350
 actctctact ttggggagaa gagagccctt cgagataatc gaattcagct 400
 ggttacctct acgccccacg agctcagcat cagcatcagc aatgtggccc 450
 tggcagacga gggcgagtac acctgctcaa tcttcactat gcctgtgcga 500
 actgccaaagt ccctcgtcac tgtgctagga attccacaga agcccatcat 550
 cactgggttat aaatcttcat tacgggaaaa agacacagcc accctaaact 600
 gtcagtcttc tgggagcaag cctgcagccc ggctcacctg gagaaaggg 650
 gaccaagaac tccacggaga accaaccgcg atacaggaag atcccaatg 700
 taaaaccttc actgtcagca gctcggtgac attccaggtt acccgggagg 750
 atgatggggc gagcatcgtg tgctctgtga accatgaatc tctaaagga 800
 gctgacagat ccacctctca acgcattgaa gttttataca caccaactgc 850

gatgattagg ccagaccctc cccatcctcg tgagggccag aagctgttgc 900
tacactgtga gggtcgcggc aatccagtcc cccagcagta cctatgggag 950
aaggagggca gtgtgccacc cctgaagatg acccaggaga gtgccctgat 1000
cttccctttc ctcaacaaga gtgacagtgg cacctacggc tgcacagcca 1050
ccagcaacat gggcagctac aaggcctact acaccctcaa tgttaatgac 1100
cccagtccgg tgccctctc ctccagcacc taccacgcca tcatcggtgg 1150
gatcgtggct ttcattgtct tcctgctgct catcatgctc atcttccttg 1200
gccactactt gatccggcac aaaggaacct acctgacaca tgaggcaaaa 1250
ggctccgacg atgctccaga cgcggacacg gccatcatca atgcagaagg 1300
cgggcagtcg ggaggggacg acaagaagga atatttcac tagaggcgcc 1350
tgcccacttc ctgcgcccc caggggccct gtggggactg ctggggccgt 1400
caccaaccg gacttgtaca gagcaaccgc agggccgccc ctcccgcttg 1450
ctccccagcc caccacccc cctgtacaga atgtctgctt tgggtgcggt 1500
tttgtactcg gtttggaatg gggagggagg agggcggggg gaggggaggg 1550
ttgccctcag ccctttccgt ggcttctctg catttggggtt attattattt 1600
ttgtaacaat cccaaatcaa atctgtctcc aggctggaga ggcaggagcc 1650
ctggggtgag aaaagcaaaa aacaaacaaa aaaca 1685

<210> 84
<211> 398
<212> PRT
<213> Homo Sapien

<400> 84
Met Gly Ala Pro Ala Ala Ser Leu Leu Leu Leu Leu Leu Phe
1 5 10 15
Ala Cys Cys Trp Ala Pro Gly Gly Ala Asn Leu Ser Gln Asp Asp
20 25 30
Ser Gln Pro Trp Thr Ser Asp Glu Thr Val Val Ala Gly Gly Thr
35 40 45
Val Val Leu Lys Cys Gln Val Lys Asp His Glu Asp Ser Ser Leu
50 55 60
Gln Trp Ser Asn Pro Ala Gln Gln Thr Leu Tyr Phe Gly Glu Lys
65 70 75
Arg Ala Leu Arg Asp Asn Arg Ile Gln Leu Val Thr Ser Thr Pro
80 85 90
His Glu Leu Ser Ile Ser Ile Ser Asn Val Ala Leu Ala Asp Glu

					95						100						105
Gly	Glu	Tyr	Thr	Cys	Ser	Ile	Phe	Thr	Met	Pro	Val	Arg	Thr	Ala			
				110					115					120			
Lys	Ser	Leu	Val	Thr	Val	Leu	Gly	Ile	Pro	Gln	Lys	Pro	Ile	Ile			
				125					130					135			
Thr	Gly	Tyr	Lys	Ser	Ser	Leu	Arg	Glu	Lys	Asp	Thr	Ala	Thr	Leu			
				140					145					150			
Asn	Cys	Gln	Ser	Ser	Gly	Ser	Lys	Pro	Ala	Ala	Arg	Leu	Thr	Trp			
				155					160					165			
Arg	Lys	Gly	Asp	Gln	Glu	Leu	His	Gly	Glu	Pro	Thr	Arg	Ile	Gln			
				170					175					180			
Glu	Asp	Pro	Asn	Gly	Lys	Thr	Phe	Thr	Val	Ser	Ser	Ser	Val	Thr			
				185					190					195			
Phe	Gln	Val	Thr	Arg	Glu	Asp	Asp	Gly	Ala	Ser	Ile	Val	Cys	Ser			
				200					205					210			
Val	Asn	His	Glu	Ser	Leu	Lys	Gly	Ala	Asp	Arg	Ser	Thr	Ser	Gln			
				215					220					225			
Arg	Ile	Glu	Val	Leu	Tyr	Thr	Pro	Thr	Ala	Met	Ile	Arg	Pro	Asp			
				230					235					240			
Pro	Pro	His	Pro	Arg	Glu	Gly	Gln	Lys	Leu	Leu	Leu	His	Cys	Glu			
				245					250					255			
Gly	Arg	Gly	Asn	Pro	Val	Pro	Gln	Gln	Tyr	Leu	Trp	Glu	Lys	Glu			
				260					265					270			
Gly	Ser	Val	Pro	Pro	Leu	Lys	Met	Thr	Gln	Glu	Ser	Ala	Leu	Ile			
				275					280					285			
Phe	Pro	Phe	Leu	Asn	Lys	Ser	Asp	Ser	Gly	Thr	Tyr	Gly	Cys	Thr			
				290					295					300			
Ala	Thr	Ser	Asn	Met	Gly	Ser	Tyr	Lys	Ala	Tyr	Tyr	Thr	Leu	Asn			
				305					310					315			
Val	Asn	Asp	Pro	Ser	Pro	Val	Pro	Ser	Ser	Ser	Ser	Thr	Tyr	His			
				320					325					330			
Ala	Ile	Ile	Gly	Gly	Ile	Val	Ala	Phe	Ile	Val	Phe	Leu	Leu	Leu			
				335					340					345			
Ile	Met	Leu	Ile	Phe	Leu	Gly	His	Tyr	Leu	Ile	Arg	His	Lys	Gly			
				350					355					360			
Thr	Tyr	Leu	Thr	His	Glu	Ala	Lys	Gly	Ser	Asp	Asp	Ala	Pro	Asp			
				365					370					375			
Ala	Asp	Thr	Ala	Ile	Ile	Asn	Ala	Glu	Gly	Gly	Gln	Ser	Gly	Gly			
				380					385					390			

Asp Asp Lys Lys Glu Tyr Phe Ile
395

<210> 85
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic Oligonucleotide Probe

<400> 85
gctaggaatt ccacagaagc cc. 22

<210> 86
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic Oligonucleotide Probe

<400> 86
aacctggaat gtcaccgagc tg 22

<210> 87
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic Oligonucleotide Probe

<400> 87
cctagcacag tgacgagggg cttggc 26

<210> 88
<211> 50
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic Oligonucleotide Probe

<400> 88
aagacacagc caccctaaac tgtcagtctt ctgggagcaa gcctgcagcc 50

<210> 89
<211> 50
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic Oligonucleotide Sequence

<400> 89
gccctggcag acgagggcga gtacacctgc tcaatcttca ctatgcctgt 50

<210> 90

<211> 2755
<212> DNA
<213> Homo Sapien

<400> 90

```
gggggtagg gaggaaggaa tccaccccca ccccccaaa cccttttctt 50
ctcctttcct ggcttcggac attggagcac taaatgaact tgaattgtgt 100
ctgtggcgag caggatggtc gctgttactt tgtgatgaga tcggggatga 150
attgctcgct ttaaaaatgc tgctttggat tctgttgctg gagacgtctc 200
tttggtttgc cgctggaaac gttacagggg acgtttgcaa agagaagatc 250
tggttcctgca atgagataga aggggacctt cacgtagact gtgaaaaaaaa 300
gggcttcaca agtctgcagc gtttcactgc cccgacttcc cagttttacc 350
atttattttct gcatggcaat tccctcactc gactttttccc taatgagttc 400
gctaactttt ataatgcggt tagtttgcac atggaaaaca atggcttgca 450
tgaaatcggt ccgggggctt ttctggggct gcagctgggtg aaaaggctgc 500
acatcaacaa caacaagatc aagtcttttc gaaagcagac ttttctgggg 550
ctggacgatc tggaatatct ccaggctgat tttaatttat tacgagatat 600
agaccggggg gccttcaggg acttgaacaa gctggagggtg ctcattttta 650
atgacaatct catcagcacc ctacctgcca acgtgttcca gtatgtgccc 700
atcacccacc tcgacctccg gggtaacagg ctgaaaacgc tgccctatga 750
ggagggtcttg gagcaaatcc ctggtattgc ggagatcctg ctagaggata 800
acccttggga ctgcacctgt gatctgctct ccctgaaaga atggctggaa 850
aacattccca agaatgccct gatcggccga gtggtctgcg aagccccac 900
cagactgcag ggtaaagacc tcaatgaaac caccgaacag gacttgtgtc 950
ctttgaaaaa ccgagtggat tctagtctcc cggcgcccc tgcccaagaa 1000
gagacctttg ctctggacc cctgccaact cctttcaaga caaatgggca 1050
agaggatcat gccacaccag ggtctgctcc aaacggagggt acaaagatcc 1100
caggcaactg gcagatcaaa atcagacca cagcagcgat agcgacgggt 1150
agctccagga acaaaccctt agctaacagt ttaccctgcc ctgggggctg 1200
cagctgcgac cacatcccag ggtcgggttt aaagatgaac tgcaacaaca 1250
ggaacgtgag cagcttggct gatttgaagc ccaagctctc taacgtgcag 1300
gagcttttcc tacgagataa caagatccac agcatccgaa aatcgcactt 1350
```

tgtggattac aagaacctca ttctgttggga tctgggcaac aataacatcg 1400
 ctactgtaga gaacaacact ttcaagaacc ttttggacct caggtggcta 1450
 tacatggata gcaattacct ggacacgctg tcccgggaga aattcgcggg 1500
 gctgcaaaac ctagagtacc tgaacgtgga gtacaacgct atccagctca 1550
 tcctcccggg cactttcaat gccatgccc aactgaggat cctcattctc 1600
 aacaacaacc tgctgaggtc cctgcctgtg gacgtgttcg ctgggggtctc 1650
 gctctctaaa ctgagcctgc acaacaatta cttcatgtac ctcccgttg 1700
 caggggtgct ggaccagtta acctccatca tccagataga cctccacgga 1750
 aacccttggg agtgctcctg cacaattgtg cctttcaagc agtgggcaga 1800
 acgcttgggt tccgaagtgc tgatgagcga cctcaagtgt gagacgccgg 1850
 tgaacttctt tagaaaggat ttcatgctcc tctccaatga cgagatctgc 1900
 cctcagctgt acgctaggat ctgcccacg ttaacttcgc acagtaaaaa 1950
 cagcactggg ttggcggaga ccgggacgca ctccaactcc tacctagaca 2000
 ccagcagggg gtccatctcg gtgttggtcc cgggactgct gctggtgttt 2050
 gtcacctccg cttcacctg ggtgggcatg ctggtgttta tcctgaggaa 2100
 ccgaaagcgg tccaagagac gagatgccaa ctctcccgcg tccgagatta 2150
 attccctaca gacagtctgt gactcttcct actggcacaa tgggccttac 2200
 aacgcagatg gggcccacag agtgatgac tgtggctctc actcgctctc 2250
 agactaagac cccaacccca ataggggagg gcagagggaa ggcgatacat 2300
 ccttccccac cgagggcacc ccgggggctg gaggggctg tacccaaatc 2350
 cccgcgccat cagcctggat gggcataagt agataaataa ctgtgagctc 2400
 gcacaaccga aagggcctga ccccttactt agtccctcc ttgaaacaaa 2450
 gagcagactg tggagagctg ggagagcgca gccagctcgc tctttgctga 2500
 gagccccctt tgacagaaag ccagcacga ccctgctgga agaactgaca 2550
 gtgccctcgc cctcgcccc ggggcctgtg ggggtggatg ccgcggttct 2600
 atacatatat acatatatcc acatctatat agagagatag atatctattt 2650
 tccccctgtg gattagcccc gtgatggctc cctgttggt acgcagggat 2700
 gggcagttgc acgaaggcat gaatgtattg taaataagta actttgactt 2750
 ctgac 2755

<210> 91

<211> 696
 <212> PRT
 <213> Homo Sapien

<400> 91

Met	Leu	Leu	Trp	Ile	Leu	Leu	Leu	Glu	Thr	Ser	Leu	Cys	Phe	Ala	1	5	10	15
Ala	Gly	Asn	Val	Thr	Gly	Asp	Val	Cys	Lys	Glu	Lys	Ile	Cys	Ser	20	25	30	
Cys	Asn	Glu	Ile	Glu	Gly	Asp	Leu	His	Val	Asp	Cys	Glu	Lys	Lys	35	40	45	
Gly	Phe	Thr	Ser	Leu	Gln	Arg	Phe	Thr	Ala	Pro	Thr	Ser	Gln	Phe	50	55	60	
Tyr	His	Leu	Phe	Leu	His	Gly	Asn	Ser	Leu	Thr	Arg	Leu	Phe	Pro	65	70	75	
Asn	Glu	Phe	Ala	Asn	Phe	Tyr	Asn	Ala	Val	Ser	Leu	His	Met	Glu	80	85	90	
Asn	Asn	Gly	Leu	His	Glu	Ile	Val	Pro	Gly	Ala	Phe	Leu	Gly	Leu	95	100	105	
Gln	Leu	Val	Lys	Arg	Leu	His	Ile	Asn	Asn	Asn	Lys	Ile	Lys	Ser	110	115	120	
Phe	Arg	Lys	Gln	Thr	Phe	Leu	Gly	Leu	Asp	Asp	Leu	Glu	Tyr	Leu	125	130	135	
Gln	Ala	Asp	Phe	Asn	Leu	Leu	Arg	Asp	Ile	Asp	Pro	Gly	Ala	Phe	140	145	150	
Gln	Asp	Leu	Asn	Lys	Leu	Glu	Val	Leu	Ile	Leu	Asn	Asp	Asn	Leu	155	160	165	
Ile	Ser	Thr	Leu	Pro	Ala	Asn	Val	Phe	Gln	Tyr	Val	Pro	Ile	Thr	170	175	180	
His	Leu	Asp	Leu	Arg	Gly	Asn	Arg	Leu	Lys	Thr	Leu	Pro	Tyr	Glu	185	190	195	
Glu	Val	Leu	Glu	Gln	Ile	Pro	Gly	Ile	Ala	Glu	Ile	Leu	Leu	Glu	200	205	210	
Asp	Asn	Pro	Trp	Asp	Cys	Thr	Cys	Asp	Leu	Leu	Ser	Leu	Lys	Glu	215	220	225	
Trp	Leu	Glu	Asn	Ile	Pro	Lys	Asn	Ala	Leu	Ile	Gly	Arg	Val	Val	230	235	240	
Cys	Glu	Ala	Pro	Thr	Arg	Leu	Gln	Gly	Lys	Asp	Leu	Asn	Glu	Thr	245	250	255	
Thr	Glu	Gln	Asp	Leu	Cys	Pro	Leu	Lys	Asn	Arg	Val	Asp	Ser	Ser	260	265	270	

63

Leu	Leu	Ser	Asn	Asp	Glu	Ile	Cys	Pro	Gln	Leu	Tyr	Ala	Arg	Ile
				575					580					585
Ser	Pro	Thr	Leu	Thr	Ser	His	Ser	Lys	Asn	Ser	Thr	Gly	Leu	Ala
				590					595					600
Glu	Thr	Gly	Thr	His	Ser	Asn	Ser	Tyr	Leu	Asp	Thr	Ser	Arg	Val
				605					610					615
Ser	Ile	Ser	Val	Leu	Val	Pro	Gly	Leu	Leu	Leu	Val	Phe	Val	Thr
				620					625					630
Ser	Ala	Phe	Thr	Val	Val	Gly	Met	Leu	Val	Phe	Ile	Leu	Arg	Asn
				635					640					645
Arg	Lys	Arg	Ser	Lys	Arg	Arg	Asp	Ala	Asn	Ser	Ser	Ala	Ser	Glu
				650					655					660
Ile	Asn	Ser	Leu	Gln	Thr	Val	Cys	Asp	Ser	Ser	Tyr	Trp	His	Asn
				665					670					675
Gly	Pro	Tyr	Asn	Ala	Asp	Gly	Ala	His	Arg	Val	Tyr	Asp	Cys	Gly
				680					685					690
Ser	His	Ser	Leu	Ser	Asp									
				695										

<210> 92
 <211> 22
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic Oligonucleotide Probe

<400> 92
 gttggatctg ggcaacaata ac 22

<210> 93
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic Oligonucleotide Probe

<400> 93
 attgttgtgc aggctgagtt taag 24

<210> 94
 <211> 45
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic Oligonucleotide Probe

<400> 94

ggtaggctata catggatagc aattacctgg acacgctgtc ccggg 45

<210> 95

<211> 2226

<212> DNA

<213> Homo Sapien

<400> 95

agtcgactgc gtcccttgta cccggcgcca gctgtgttcc tgaccccaaga 50
ataactcagg gctgcaccgg gcctggcagc gctccgcaca catttcctgt 100
cgcggcctaa gggaaactgt tggccgctgg gcccgcgggg ggattcttgg 150
cagttggggg gtccgtcggg agcgagggcg gaggggaagg gagggggaac 200
cgggttgggg aagccagctg tagagggcgg tgaccgcgct ccagacacag 250
ctctgcgtcc tcgagcggga cagatccaag ttgggagcag ctctgcgtgc 300
ggggcctcag agaatgaggc cggcggttcgc cctgtgcctc ctctggcagg 350
cgctctggcc cgggcccggg ggcggcggaac accccactgc cgaccgtgct 400
ggctgctcgg cctcgggggc ctgctacagc ctgcaccacg ctaccatgaa 450
gcggcaggcg gccgaggagg cctgcatacct gcgagggtgg gcgctcagca 500
ccgtgcgtgc gggcgccgag ctgcgcgctg tgctcgcgct cctgcgggca 550
ggcccagggc ccggaggggg ctccaaagac ctgctgttct gggtcgcact 600
ggagcgcagg cgttcccact gcaccctgga gaacgagcct ttgcgggggt 650
tctcctggct gtccctccgac cccggcggtc tcgaaagcga cacgctgcag 700
tggggtggagg agccccaacg ctccctgcacc gcgcggagat gcgcggtact 750
ccaggccacc ggtgggggtcg agcccgagg ctggaaggag atgcgatgcc 800
acctgcgcgc caacggctac ctgtgcaagt accagtttga ggtcttgtgt 850
cctgcgcgcg gccccggggc cgctctaac ttgagctatc gcgcgccctt 900
ccagctgcac agcgccgctc tggacttcag tccacctggg accgaggtga 950
gtgcgctctg ccggggacag ctcccgatct cagttacttg catcgcggaac 1000
gaaatcggcg ctcgctggga caaactctcg ggcgatgtgt tgtgtccctg 1050
ccccgggagg tacctccgtg ctggcaaatg cgcagagctc cctaactgcc 1100
tagacgactt gggaggcttt gcctgcgaat gtgctacggg cttcgagctg 1150
gggaaggacg gccgctcttg tgtgaccagt ggggaaggac agccgaccct 1200
tggggggacc ggggtgcccc ccaggcgccc gccggccact gcaaccagcc 1250
ccgtgccgca gagaacatgg ccaatcaggg tcgacgagaa gctgggagag 1300

acaccacttg tccctgaaca agacaattca gtaacatcta ttcctgagat 1350
 tctcogatgg ggatcacaga gcacgatgtc tacccttcaa atgtcccttc 1400
 aagccgagtc aaaggccact atcaccccat cagggagcgt gatttccaag 1450
 tttaattcta cgacttcctc tgccactcct caggctttcg actcctcctc 1500
 tgccgtgggtc ttcataattg tgagcacagc agtagtagtg ttggtgatct 1550
 tgaccatgac agtactgggg cttgtcaagc tctgctttca cgaaagcccc 1600
 tcttcccagc caaggaagga gtctatgggc ccgccggggc tggagagtga 1650
 tcttgagccc gctgctttgg gctccagttc tgcacattgc acaacaatg 1700
 gggtgaaagt cggggactgt gatctgcggg acagagcaga gggcgccttg 1750
 ctggcggagt cccctcttgg ctctagtgat gcatagggaa acaggggaca 1800
 tgggcactcc tgtgaacagt ttttcacttt tgatgaaacg gggaaccaag 1850
 aggaacttac ttgtgtaact gacaatttct gcagaaatcc cccttcctct 1900
 aaattccctt tactccactg aggagctaaa tcagaactgc acactccttc 1950
 cctgatgata gaggaagtgg aagtgccttt aggatggtga tactggggga 2000
 ccgggtagtg ctggggagag atattttctt atgtttattc ggagaatttg 2050
 gagaagtgat tgaacttttc aagacattgg aaacaaatag aacacaatat 2100
 aatttacatt aaaaaataat ttctacaaa atggaaagga aatgttctat 2150
 gttgttcagg ctaggagtat attggttcga aatcccaggg aaaaaataa 2200
 aaataaaaaa ttaaaggatt gttgat 2226

<210> 96
 <211> 490
 <212> PRT
 <213> Homo Sapien

<400> 96
 Met Arg Pro Ala Phe Ala Leu Cys Leu Leu Trp Gln Ala Leu Trp
 1 5 10 15
 Pro Gly Pro Gly Gly Gly Glu His Pro Thr Ala Asp Arg Ala Gly
 20 25 30
 Cys Ser Ala Ser Gly Ala Cys Tyr Ser Leu His His Ala Thr Met
 35 40 45
 Lys Arg Gln Ala Ala Glu Glu Ala Cys Ile Leu Arg Gly Gly Ala
 50 55 60
 Leu Ser Thr Val Arg Ala Gly Ala Glu Leu Arg Ala Val Leu Ala
 65 70 75

Leu	Leu	Arg	Ala	Gly	Pro	Gly	Pro	Gly	Gly	Gly	Ser	Lys	Asp	Leu		80	85	90
Leu	Phe	Trp	Val	Ala	Leu	Glu	Arg	Arg	Arg	Ser	His	Cys	Thr	Leu		95	100	105
Glu	Asn	Glu	Pro	Leu	Arg	Gly	Phe	Ser	Trp	Leu	Ser	Ser	Asp	Pro		110	115	120
Gly	Gly	Leu	Glu	Ser	Asp	Thr	Leu	Gln	Trp	Val	Glu	Glu	Pro	Gln		125	130	135
Arg	Ser	Cys	Thr	Ala	Arg	Arg	Cys	Ala	Val	Leu	Gln	Ala	Thr	Gly		140	145	150
Gly	Val	Glu	Pro	Ala	Gly	Trp	Lys	Glu	Met	Arg	Cys	His	Leu	Arg		155	160	165
Ala	Asn	Gly	Tyr	Leu	Cys	Lys	Tyr	Gln	Phe	Glu	Val	Leu	Cys	Pro		170	175	180
Ala	Pro	Arg	Pro	Gly	Ala	Ala	Ser	Asn	Leu	Ser	Tyr	Arg	Ala	Pro		185	190	195
Phe	Gln	Leu	His	Ser	Ala	Ala	Leu	Asp	Phe	Ser	Pro	Pro	Gly	Thr		200	205	210
Glu	Val	Ser	Ala	Leu	Cys	Arg	Gly	Gln	Leu	Pro	Ile	Ser	Val	Thr		215	220	225
Cys	Ile	Ala	Asp	Glu	Ile	Gly	Ala	Arg	Trp	Asp	Lys	Leu	Ser	Gly		230	235	240
Asp	Val	Leu	Cys	Pro	Cys	Pro	Gly	Arg	Tyr	Leu	Arg	Ala	Gly	Lys		245	250	255
Cys	Ala	Glu	Leu	Pro	Asn	Cys	Leu	Asp	Asp	Leu	Gly	Gly	Phe	Ala		260	265	270
Cys	Glu	Cys	Ala	Thr	Gly	Phe	Glu	Leu	Gly	Lys	Asp	Gly	Arg	Ser		275	280	285
Cys	Val	Thr	Ser	Gly	Glu	Gly	Gln	Pro	Thr	Leu	Gly	Gly	Thr	Gly		290	295	300
Val	Pro	Thr	Arg	Arg	Pro	Pro	Ala	Thr	Ala	Thr	Ser	Pro	Val	Pro		305	310	315
Gln	Arg	Thr	Trp	Pro	Ile	Arg	Val	Asp	Glu	Lys	Leu	Gly	Glu	Thr		320	325	330
Pro	Leu	Val	Pro	Glu	Gln	Asp	Asn	Ser	Val	Thr	Ser	Ile	Pro	Glu		335	340	345
Ile	Pro	Arg	Trp	Gly	Ser	Gln	Ser	Thr	Met	Ser	Thr	Leu	Gln	Met		350	355	360
Ser	Leu	Gln	Ala	Glu	Ser	Lys	Ala	Thr	Ile	Thr	Pro	Ser	Gly	Ser		365	370	375

Val	Ile	Ser	Lys	Phe	Asn	Ser	Thr	Thr	Ser	Ser	Ala	Thr	Pro	Gln	380	385	390
Ala	Phe	Asp	Ser	Ser	Ser	Ala	Val	Val	Phe	Ile	Phe	Val	Ser	Thr	395	400	405
Ala	Val	Val	Val	Leu	Val	Ile	Leu	Thr	Met	Thr	Val	Leu	Gly	Leu	410	415	420
Val	Lys	Leu	Cys	Phe	His	Glu	Ser	Pro	Ser	Ser	Gln	Pro	Arg	Lys	425	430	435
Glu	Ser	Met	Gly	Pro	Pro	Gly	Leu	Glu	Ser	Asp	Pro	Glu	Pro	Ala	440	445	450
Ala	Leu	Gly	Ser	Ser	Ser	Ala	His	Cys	Thr	Asn	Asn	Gly	Val	Lys	455	460	465
Val	Gly	Asp	Cys	Asp	Leu	Arg	Asp	Arg	Ala	Glu	Gly	Ala	Leu	Leu	470	475	480
Ala	Glu	Ser	Pro	Leu	Gly	Ser	Ser	Asp	Ala						485	490	

<210> 97
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic Oligonucleotide Probe

<400> 97
 tggaaggaga tgcgatgccca cctg 24

<210> 98
 <211> 20
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 98
 tgaccagtgg ggaaggacag 20

<210> 99
 <211> 20
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic Oligonucleotide Probe

<400> 99
 acagagcaga ggggtgccttg 20

<210> 100
 <211> 24

<212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic Oligonucleotide Probe

 <400> 100
 tcagggacaa gtggtgtctc tccc 24

 <210> 101
 <211> 24
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic Oligonucleotide Probe

 <400> 101
 tcaggggaagg agtgtgcagt tctg 24

 <210> 102
 <211> 50
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic Oligonucleotide Probe

 <400> 102
 acagctcccc atctcagtta cttgcatcgc ggacgaaatc ggcgctcgct 50

 <210> 103
 <211> 2026
 <212> DNA
 <213> Homo Sapien

 <400> 103
 cggacgcgtg ggattcagca gtggcctgtg gctgccagag cagctcctca 50

 ggggaaacta agcgtcgagt cagacggcac cataatcgcc tttaaaagtg 100
 cctccgcctt gccggccgcg tatcccccg ctacctgggc cgccccgcgg 150

 cgggtgcgcgc gtgagaggga gcgcgcgggc agccgagcgc cgggtgtgagc 200

 cagcgctgct gccagtgtga gcggcggtgt gagcgcggtg ggtgcggagg 250

 ggcgtgtgtg ccggcgcgcg cgccgtgggg tgcaaaccac gagcgtctac 300

 gctgccatga ggggcgcgaa cgcctgggcg ccactctgcc tgctgctggc 350

 tgccgccacc cagctctcgc ggcagcagtc cccagagaga cctgttttca 400

 catgtggtgg cattcttact ggagagtctg gatttattgg cagtgaaggt 450

 tttcctggag tgtaccctcc aaatagcaaa tgtacttgga aaatcacagt 500

 tcccgaagga aaagtagtcg ttctcaattt ccgattcata gacctcgaga 550

 gtgacaacct gtgccgctat gactttgtgg atgtgtacaa tggccatgcc 600

```

aatggccagc gcattggccg cttctgtggc actttccggc ctggagccct 650
tgtgtccagt ggcaacaaga tgatggtgca gatgatttct gatgccaaaca 700
cagctggcaa tggcttcatg gccatgttct ccgctgctga accaaacgaa 750
agaggggatc agtattgtgg aggactcctt gacagacctt ccggctcttt 800
taaaaccccc aactggccag accgggatta ccctgcagga gtcacttgtg 850
tgtggcacat ttagcccca aagaatcagc ttatagaatt aaagtttgag 900
aagtttgatg tggagcgaga taactactgc cgatatgatt atgtggctgt 950
gtttaatggc ggggaagtca acgatgctag aagaattgga aagtattgtg 1000
gtgatagtcc acctgcgcca attgtgtctg agagaaatga acttcttatt 1050
cagtttttat cagacttaag ttttaactgca gatgggttta ttggtcacta 1100
catattcagg ccaaaaaaac tgcctacaac tacagaacag cctgtcacca 1150
ccacattccc tgtaaccacg gggttaaaac ccaccgtggc cttgtgtcaa 1200
caaaagtgta gacggacggg gactctggag ggcaattatt gttcaagtga 1250
ctttgtatta gccggcactg ttatcacaac catcactcgc gatgggagtt 1300
tgcacgccac agtctcgatc atcaacatct acaaagaggg aaatttggcg 1350
attcagcagg cgggcaagaa catgagtgcc aggctgactg tcgtctgcaa 1400
gcagtgccct ctctcagaa gaggtctaaa ttacattatt atgggccaag 1450
taggtgaaga tgggcgaggc aaaatcatgc caaacagctt tatcatgatg 1500
ttcaagacca agaatcagaa gctcctggat gccttaaaaa ataagcaatg 1550
ttaacagtga actgtgtcca tttaaagtgt attctgccat tgcctttgaa 1600
agatctatgt tctctcagta gaaaaaaaaa tacttataaa attacatatt 1650
ctgaaagagg attccgaaag atgggactgg ttgactcttc acatgatgga 1700
ggtatgaggc ctccgagata gctgaggga gttctttgcc tgctgtcaga 1750
ggagcagcta tctgattgga aacctgccga cttagtgcgg tgataggaag 1800
ctaaaagtgt caagcgttga cagcttgga gcgtttattt atacatctct 1850
gtaaaaggat attttagaat tgagttgtgt gaagatgtca aaaaaagatt 1900
ttagaagtgc aatatttata gtgttatttg tttcaccttc aagcctttgc 1950
cctgaggtgt tacaatcttg tcttgcgttt tcta'aatcaa tgcttaataa 2000
aatattttta aaggaaaaaa aaaaaa 2026

```

<210> 104

<211> 415
 <212> PRT
 <213> Homo Sapien

<400> 104

Met	Arg	Gly	Ala	Asn	Ala	Trp	Ala	Pro	Leu	Cys	Leu	Leu	Leu	Ala	1	5	10	15
Ala	Ala	Thr	Gln	Leu	Ser	Arg	Gln	Gln	Ser	Pro	Glu	Arg	Pro	Val	20	25	30	
Phe	Thr	Cys	Gly	Gly	Ile	Leu	Thr	Gly	Glu	Ser	Gly	Phe	Ile	Gly	35	40	45	
Ser	Glu	Gly	Phe	Pro	Gly	Val	Tyr	Pro	Pro	Asn	Ser	Lys	Cys	Thr	50	55	60	
Trp	Lys	Ile	Thr	Val	Pro	Glu	Gly	Lys	Val	Val	Val	Leu	Asn	Phe	65	70	75	
Arg	Phe	Ile	Asp	Leu	Glu	Ser	Asp	Asn	Leu	Cys	Arg	Tyr	Asp	Phe	80	85	90	
Val	Asp	Val	Tyr	Asn	Gly	His	Ala	Asn	Gly	Gln	Arg	Ile	Gly	Arg	95	100	105	
Phe	Cys	Gly	Thr	Phe	Arg	Pro	Gly	Ala	Leu	Val	Ser	Ser	Gly	Asn	110	115	120	
Lys	Met	Met	Val	Gln	Met	Ile	Ser	Asp	Ala	Asn	Thr	Ala	Gly	Asn	125	130	135	
Gly	Phe	Met	Ala	Met	Phe	Ser	Ala	Ala	Glu	Pro	Asn	Glu	Arg	Gly	140	145	150	
Asp	Gln	Tyr	Cys	Gly	Gly	Leu	Leu	Asp	Arg	Pro	Ser	Gly	Ser	Phe	155	160	165	
Lys	Thr	Pro	Asn	Trp	Pro	Asp	Arg	Asp	Tyr	Pro	Ala	Gly	Val	Thr	170	175	180	
Cys	Val	Trp	His	Ile	Val	Ala	Pro	Lys	Asn	Gln	Leu	Ile	Glu	Leu	185	190	195	
Lys	Phe	Glu	Lys	Phe	Asp	Val	Glu	Arg	Asp	Asn	Tyr	Cys	Arg	Tyr	200	205	210	
Asp	Tyr	Val	Ala	Val	Phe	Asn	Gly	Gly	Glu	Val	Asn	Asp	Ala	Arg	215	220	225	
Arg	Ile	Gly	Lys	Tyr	Cys	Gly	Asp	Ser	Pro	Pro	Ala	Pro	Ile	Val	230	235	240	
Ser	Glu	Arg	Asn	Glu	Leu	Leu	Ile	Gln	Phe	Leu	Ser	Asp	Leu	Ser	245	250	255	
Leu	Thr	Ala	Asp	Gly	Phe	Ile	Gly	His	Tyr	Ile	Phe	Arg	Pro	Lys	260	265	270	

Lys	Leu	Pro	Thr	Thr	Thr	Glu	Gln	Pro	Val	Thr	Thr	Thr	Phe	Pro	275	280	285
Val	Thr	Thr	Gly	Leu	Lys	Pro	Thr	Val	Ala	Leu	Cys	Gln	Gln	Lys	290	295	300
Cys	Arg	Arg	Thr	Gly	Thr	Leu	Glu	Gly	Asn	Tyr	Cys	Ser	Ser	Asp	305	310	315
Phe	Val	Leu	Ala	Gly	Thr	Val	Ile	Thr	Thr	Ile	Thr	Arg	Asp	Gly	320	325	330
Ser	Leu	His	Ala	Thr	Val	Ser	Ile	Ile	Asn	Ile	Tyr	Lys	Glu	Gly	335	340	345
Asn	Leu	Ala	Ile	Gln	Gln	Ala	Gly	Lys	Asn	Met	Ser	Ala	Arg	Leu	350	355	360
Thr	Val	Val	Cys	Lys	Gln	Cys	Pro	Leu	Leu	Arg	Arg	Gly	Leu	Asn	365	370	375
Tyr	Ile	Ile	Met	Gly	Gln	Val	Gly	Glu	Asp	Gly	Arg	Gly	Lys	Ile	380	385	390
Met	Pro	Asn	Ser	Phe	Ile	Met	Met	Phe	Lys	Thr	Lys	Asn	Gln	Lys	395	400	405
Leu	Leu	Asp	Ala	Leu	Lys	Asn	Lys	Gln	Cys						410	415	

<210> 105

<211> 22

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Oligonucleotide Probe

<400> 105

ccgattcata gacctcgaga gt 22

<210> 106

<211> 22

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Oligonucleotide Probe

<400> 106

gtcaaggagt cctccacaat ac 22

<210> 107

<211> 45

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Oligonucleotide Probe

<400> 107
gtgtacaatg gccatgccaa tggccagcgc attggccgct tctgt 45

<210> 108
<211> 1838
<212> DNA
<213> Homo Sapien

<400> 108
cggacgcgtg ggccggacgcg tgggcggccc acggcgcccg cgggctgggg 50
cggtcgcttc ttccttctcc gtggcctacg agggccccca gcctgggtaa 100
agatggcccc atggcccccg aagggcctag tcccagctgt gctctggggc 150
ctcagcctct tcctcaacct cccaggacct atctggctcc agccctctcc 200
acctccccag tcttctcccc cgcctcagcc ccatccgtgt catacctgcc 250
ggggactggt tgacagcttt aacaagggcc tggagagAAC catccgggac 300
aactttggag gtggaaacac tgcctgggag gaagagaatt tgtccaaata 350
caaagacagt gagacccgcc tggtagaggt gctggagggt gtgtgcagca 400
agtcagactt cgagtgccac cgcctgctgg agctgagtga ggagctggtg 450
gagagctggt ggtttcacia gcagcaggag gccccggacc tcttccagtg 500
gctgtgctca gattccctga agctctgctg ccccgaggc accttcgggc 550
cctcctgcct tccctgtcct gggggaacag agaggccctg cgggtggctac 600
gggcagtgtg aaggagaagg gacacgaggg ggcagcgggc actgtgactg 650
ccaagccggc tacggggggtg aggcctgtgg ccagtgtggc cttggctact 700
ttgaggcaga acgcaacgcc agccatctgg tatgttcggc ttgttttggc 750
ccctgtgccc gatgctcagg acctgaggaa tcaaactgtt tgcaatgcaa 800
gaagggtgtg gccctgcac acctcaagtg tgtagacatt gatgagtgtg 850
gcacagaggg agccaactgt ggagctgacc aattctgcgt gaacactgag 900
ggctcctatg agtgccgaga ctgtgccaaag gcctgcctag gctgcatggg 950
ggcagggcca ggtcgctgta agaagtgtag ccctggctat cagcagggtg 1000
gctccaagtg tctcgatgtg gatgagtgtg agacagaggt gtgtccggga 1050
gagaacaagc agtgtgaaaa caccgagggc ggttatcgct gcatctgtgc 1100
cgagggttac aagcagatgg aaggcatctg tgtgaaggag cagatcccag 1150
agtcagcagg cttcttctca gagatgacag aagacgagtt ggtgggtgctg 1200
cagcagatgt tctttggcat catcatctgt gactggcca cgctggctgc 1250

taagggcgac ttggtgttca cgcctatctt cattggggct gtggcggcca 1300
 tgactggcta ctggttgtca gagcgcagt accgtgtgct ggagggcttc 1350
 atcaagggca gataatcgcg gccaccacct gtaggacctc ctcccaccca 1400
 cgctgcccc agagcttggg ctgcctcct gctggacact caggacagct 1450
 tggtttattt ttgagagtgg ggtaagcacc cctacctgcc ttacagagca 1500
 gccaggtac ccaggcccgg gcagacaagg cccctgggggt aaaaagtagc 1550
 cctgaaggtg gataccatga gctcttcacc tggcggggac tggcaggctt 1600
 cacaatgtgt gaatttcaaa agtttttctt taatgggtggc tgctagagct 1650
 ttggccccctg cttaggatta ggtggtcctc acaggggtgg ggccatcaca 1700
 gctccctcct gccagctgca tgctgccagt tctgttctg tgttcaccac 1750
 atccccacac ccattgcca cttatttatt catctcagga aataaagaaa 1800
 ggtcttggaa agttaaaaaa aaaaaaaaaa aaaaaaaaa 1838

<210> 109
 <211> 420
 <212> PRT
 <213> Homo Sapien

<400> 109
 Met Ala Pro Trp Pro Pro Lys Gly Leu Val Pro Ala Val Leu Trp
 1 5 10 15
 Gly Leu Ser Leu Phe Leu Asn Leu Pro Gly Pro Ile Trp Leu Gln
 20 25 30
 Pro Ser Pro Pro Pro Gln Ser Ser Pro Pro Pro Gln Pro His Pro
 35 40 45
 Cys His Thr Cys Arg Gly Leu Val Asp Ser Phe Asn Lys Gly Leu
 50 55 60
 Glu Arg Thr Ile Arg Asp Asn Phe Gly Gly Gly Asn Thr Ala Trp
 65 70 75
 Glu Glu Glu Asn Leu Ser Lys Tyr Lys Asp Ser Glu Thr Arg Leu
 80 85 90
 Val Glu Val Leu Glu Gly Val Cys Ser Lys Ser Asp Phe Glu Cys
 95 100 105
 His Arg Leu Leu Glu Leu Ser Glu Glu Leu Val Glu Ser Trp Trp
 110 115 120
 Phe His Lys Gln Gln Glu Ala Pro Asp Leu Phe Gln Trp Leu Cys
 125 130 135
 Ser Asp Ser Leu Lys Leu Cys Cys Pro Ala Gly Thr Phe Gly Pro

Ser Cys Leu Pro	140		145		150
Cys Pro Gly Gly Thr	155	Glu Arg Pro Cys Gly Gly	160		165
Tyr Gly Gln Cys	170	Glu Gly Glu Gly Thr	175	Arg Gly Gly Ser Gly His	180
Cys Asp Cys Gln	185	Ala Gly Tyr Gly Gly	190	Glu Ala Cys Gly Gln Cys	195
Gly Leu Gly Tyr	200	Phe Glu Ala Glu Arg	205	Asn Ala Ser His Leu Val	210
Cys Ser Ala Cys	215	Phe Gly Pro Cys Ala	220	Arg Cys Ser Gly Pro Glu	225
Glu Ser Asn Cys	230	Leu Gln Cys Lys Lys	235	Gly Trp Ala Leu His His	240
Leu Lys Cys Val	245	Asp Ile Asp Glu Cys	250	Gly Thr Glu Gly Ala Asn	255
Cys Gly Ala Asp	260	Gln Phe Cys Val Asn	265	Thr Glu Gly Ser Tyr Glu	270
Cys Arg Asp Cys	275	Ala Lys Ala Cys Leu	280	Gly Cys Met Gly Ala Gly	285
Pro Gly Arg Cys	290	Lys Lys Cys Ser Pro	295	Gly Tyr Gln Gln Val Gly	300
Ser Lys Cys Leu	305	Asp Val Asp Glu Cys	310	Glu Thr Glu Val Cys Pro	315
Gly Glu Asn Lys	320	Gln Cys Glu Asn Thr	325	Glu Gly Gly Tyr Arg Cys	330
Ile Cys Ala Glu	335	Gly Tyr Lys Gln Met	340	Glu Gly Ile Cys Val Lys	345
Glu Gln Ile Pro	350	Glu Ser Ala Gly Phe	355	Phe Ser Glu Met Thr Glu	360
Asp Glu Leu Val	365	Val Leu Gln Gln Met	370	Phe Phe Gly Ile Ile Ile	375
Cys Ala Leu Ala	380	Thr Leu Ala Ala Lys	385	Gly Asp Leu Val Phe Thr	390
Ala Ile Phe Ile	395	Gly Ala Val Ala Ala	400	Met Thr Gly Tyr Trp Leu	405
Ser Glu Arg Ser	410	Asp Arg Val Leu Glu	415	Gly Phe Ile Lys Gly Arg	420

<210> 110

<211> 50

<212> DNA

<213> Artificial Sequence

<220>
 <223> Synthetic Oligonucleotide Probe

 <400> 110
 cctggctatc agcaggtggg ctccaagtgt ctcgatgtgg atgagtgtga 50

 <210> 111
 <211> 22
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic Oligonucleotide Probe

 <400> 111
 attctgcgtg aacactgagg gc 22

 <210> 112
 <211> 22
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic Oligonucleotide Probe

 <400> 112
 atctgcttgt agccctcggc ac 22

 <210> 113
 <211> 1616
 <212> DNA
 <213> Homo Sapien

 <220>
 <221> unsure
 <222> 1461
 <223> unknown base

 <400> 113
 tgagaccctc ctgcagcctt ctcaagggac agccccactc tgcctcttgc 50
 tcctccaggg cagcaccatg cagccccctgt ggctctgctg ggcactctgg 100
 gtgttgcccc tggccagccc cggggccgcc ctgaccgggg agcagctcct 150
 gggcagcctg ctgcggcagc tgcagctcaa agaggtgccc accctggaca 200
 gggccgacat ggaggagctg gtcattcccca cccacgtgag ggcccagtac 250
 gtggccctgc tgcagcgcag ccacggggac cgctcccgcg gaaagagggt 300
 cagccagagc ttccgagagg tggccggcag gttcctggcg ttggaggcca 350
 gcacacacct gctggtgttc ggcatggagc agcggctgcc gcccaacagc 400
 gagctggtgc aggccgtgct gcggctcttc caggagccgg tccccaaggc 450
 cgcgctgcac aggcacgggc ggctgtcccc gcgcagcgcc cgggcccggg 500

tgaccgtcga gtggctgcgc gtccgcgacg acggtccaa ccgcacctcc 550
 ctcacgcact ccaggctggg gtccgtccac gagagcggct ggaaggcctt 600
 cgacgtgacc gaggccgtga acttctggca gcagctgagc cggccccggc 650
 agccgctgct gctacaggtg tcggtgcaga gggagcatct gggccccgctg 700
 gcgtccggcg cccacaagct ggtccgcttt gcctcgcagg gggcgccagc 750
 cgggcttggg gagccccagc tggagctgca caccctggac cttggggact 800
 atggagctca gggcgactgt gaccctgaag caccaatgac cgagggcacc 850
 cgctgctgcc gccaggagat gtacattgac ctgcagggga tgaagtgggc 900
 cgagaactgg gtgctggagc ccccgggctt cctggcttat gagtgtgtgg 950
 gcacctgccg gcagcccccg gaggccttgg ccttcaagtg gccgtttctg 1000
 gggcctcgac agtgcacgc ctcggagact gactcgtgc ccatgatcgt 1050
 cagcatcaag gagggaggca ggaccaggcc ccagggtggc agcctgcca 1100
 acatgagggg gcagaagtgc agctgtgcct cggatgggtgc gctcgtgcca 1150
 aggaggctcc agccataggc gcctagtgtg gccatcgagg gacttgactt 1200
 gtgtgtgttt ctgaagtgtt cgagggtacc aggagagctg gcgatgactg 1250
 aactgctgat ggacaaatgc tctgtgctct ctagtgagcc ctgaatttgc 1300
 ttctctgac aagttacctc acctaatttt tgcttctcag gaatgagaat 1350
 ctttggccac tggagagccc ttgctcagtt ttctctattc ttattattca 1400
 ctgcactata ttctaagcac ttacatgtgg agatactgta acctgagggc 1450
 agaaagccca ntgtgtcatt gtttacttgt cctgtcactg gatctgggct 1500
 aaagtccctc accaccactc tggacctaa acctgggggt aagtgtgggt 1550
 tgtgcatccc caatccagat aataaagact ttgtaaaaca tgaataaaac 1600
 acattttatt ctaaaa 1616

<210> 114

<211> 366

<212> PRT

<213> Homo Sapien

<400> 114

Met	Gln	Pro	Leu	Trp	Leu	Cys	Trp	Ala	Leu	Trp	Val	Leu	Pro	Leu
1				5					10				15	

Ala	Ser	Pro	Gly	Ala	Ala	Leu	Thr	Gly	Glu	Gln	Leu	Leu	Gly	Ser
			20					25					30	

Leu	Leu	Arg	Gln	Leu	Gln	Leu	Lys	Glu	Val	Pro	Thr	Leu	Asp	Arg		35	40	45
Ala	Asp	Met	Glu	Glu	Leu	Val	Ile	Pro	Thr	His	Val	Arg	Ala	Gln		50	55	60
Tyr	Val	Ala	Leu	Leu	Gln	Arg	Ser	His	Gly	Asp	Arg	Ser	Arg	Gly		65	70	75
Lys	Arg	Phe	Ser	Gln	Ser	Phe	Arg	Glu	Val	Ala	Gly	Arg	Phe	Leu		80	85	90
Ala	Leu	Glu	Ala	Ser	Thr	His	Leu	Leu	Val	Phe	Gly	Met	Glu	Gln		95	100	105
Arg	Leu	Pro	Pro	Asn	Ser	Glu	Leu	Val	Gln	Ala	Val	Leu	Arg	Leu		110	115	120
Phe	Gln	Glu	Pro	Val	Pro	Lys	Ala	Ala	Leu	His	Arg	His	Gly	Arg		125	130	135
Leu	Ser	Pro	Arg	Ser	Ala	Arg	Ala	Arg	Val	Thr	Val	Glu	Trp	Leu		140	145	150
Arg	Val	Arg	Asp	Asp	Gly	Ser	Asn	Arg	Thr	Ser	Leu	Ile	Asp	Ser		155	160	165
Arg	Leu	Val	Ser	Val	His	Glu	Ser	Gly	Trp	Lys	Ala	Phe	Asp	Val		170	175	180
Thr	Glu	Ala	Val	Asn	Phe	Trp	Gln	Gln	Leu	Ser	Arg	Pro	Arg	Gln		185	190	195
Pro	Leu	Leu	Leu	Gln	Val	Ser	Val	Gln	Arg	Glu	His	Leu	Gly	Pro		200	205	210
Leu	Ala	Ser	Gly	Ala	His	Lys	Leu	Val	Arg	Phe	Ala	Ser	Gln	Gly		215	220	225
Ala	Pro	Ala	Gly	Leu	Gly	Glu	Pro	Gln	Leu	Glu	Leu	His	Thr	Leu		230	235	240
Asp	Leu	Gly	Asp	Tyr	Gly	Ala	Gln	Gly	Asp	Cys	Asp	Pro	Glu	Ala		245	250	255
Pro	Met	Thr	Glu	Gly	Thr	Arg	Cys	Cys	Arg	Gln	Glu	Met	Tyr	Ile		260	265	270
Asp	Leu	Gln	Gly	Met	Lys	Trp	Ala	Glu	Asn	Trp	Val	Leu	Glu	Pro		275	280	285
Pro	Gly	Phe	Leu	Ala	Tyr	Glu	Cys	Val	Gly	Thr	Cys	Arg	Gln	Pro		290	295	300
Pro	Glu	Ala	Leu	Ala	Phe	Lys	Trp	Pro	Phe	Leu	Gly	Pro	Arg	Gln		305	310	315
Cys	Ile	Ala	Ser	Glu	Thr	Asp	Ser	Leu	Pro	Met	Ile	Val	Ser	Ile		320	325	330

Lys Glu Gly Gly Arg Thr Arg Pro Gln Val Val Ser Leu Pro Asn
 335 340 345

Met Arg Val Gln Lys Cys Ser Cys Ala Ser Asp Gly Ala Leu Val
 350 355 360

Pro Arg Arg Leu Gln Pro
 365

<210> 115

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Oligonucleotide Probe

<400> 115

aggactgccca taacttgcct g 21

<210> 116

<211> 22

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Oligonucleotide Probe

<400> 116

ataggagttg aagcagcgct gc 22

<210> 117

<211> 45

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Oligonucleotide Probe

<400> 117

tgtgtggaca tagacgagtg ccgctaccgc tactgccagc accgc 45

<210> 118

<211> 1857

<212> DNA

<213> Homo Sapien

<400> 118

gtctgttccc aggagtcctt cggcggctgt tgtgtcagtg gcctgatcgc 50

gatggggaca aaggcgcaag tcgagaggaa actggtgtgc ctcttcatat 100

tggcgatcct gttgtgctcc ctggcattgg gcagtgttac agtgcactct 150

tctgaacctg aagtcagaat tcctgagaat aatcctgtga agttgtcctg 200

tgctactcgc ggcttttctt ctccccgtgt ggagtgggaag tttgaccaag 250

gagacaccac cagactcggt tgctataata acaagatcac agcttcctat 300

gaggaccggg tgaccttctt gccaaactggt atcaccttca agtccgtgac 350
acgggaagac actgggacat acacttgat ggtctctgag gaaggcggca 400
acagctatgg ggaggtcaag gtcaagctca tcgtgcttgt gcctccatcc 450
aagcctacag ttaacatccc ctctctgcc accattggga accgggcagt 500
gctgacatgc tcagaacaag atgggtcccc accttctgaa tacacctggt 550
tcaaagatgg gatagtgat cctacgaatc ccaaaagcac ccgtgccttc 600
agcaactctt cctatgtcct gaatcccaca acaggagagc tgggtcttga 650
tccccgtca gcctctgata ctggagaata cagctgtgag gcacggaatg 700
ggtatgggac acccatgact tcaaagtctg tgcgcatgga agctgtggag 750
cggaatgtgg ggggtcatcgt ggcagccgtc cttgtaacct tgattctcct 800
gggaatcttg gtttttggca tctggtttgc ctatagccga ggccactttg 850
acagaacaaa gaaagggact tcgagtaaga aggtgattta cagccagcct 900
agtccccgaa gtgaaggaga attcaaacag acctcgtcat tcctgggtgtg 950
agcctgggtcg gctcaccgcc tatcatctgc atttgcctta ctcaggtgct 1000
accggactct ggcccctgat gtctgtagtt tcacaggatg ccttatttgt 1050
cttctacacc ccacagggcc ccctacttct tcggatgtgt ttttaataat 1100
gtcagctatg tgccccatcc tccttcatgc cctccctccc tttcctacca 1150
ctgctgagtg gcctggaact tgtttaaagt gtttattccc catttctttg 1200
agggatcagg aaggaatcct ggggatgcca ttgacttccc ttctaagtag 1250
acagcaaaaa tggcgggggt cgcaggaatc tgcactcaac tgcccacctg 1300
gctggcaggg atctttgaat aggtatcttg agcttgggtc tgggctcttt 1350
ccttgtgtac tgacgaccag ggccagctgt tctagagcgg gaattagagg 1400
ctagagcggc tgaaatggtt gtttgggtgat gacactgggg tccttccatc 1450
tctggggccc actctcttct gtcttcccat gggaagtgcc actgggatcc 1500
ctctgccttg tcctcctgaa tacaagctga ctgacattga ctgtgtctgt 1550
ggaaaatggg agctcttggt gtggagagca tagtaaattt tcagagaact 1600
tgaagccaaa aggatttaaa accgctgctc taaagaaaag aaaactggag 1650
gctgggcgca gtggctcacg cctgtaatcc cagaggctga ggcaggcgga 1700
tcacctgagg tcgggagttc gggatcagcc tgaccaacat ggagaaacct 1750

tactggaaat acaaagtttag ccaggcatgg tgggtgcatgc ctgtagtccc 1800
 agctgctcag gagcctggca acaagagcaa aactccagct caaaaaaaaaa 1850
 aaaaaaaaa 1857

<210> 119
 <211> 299
 <212> PRT
 <213> Homo Sapien

<400> 119
 Met Gly Thr Lys Ala Gln Val Glu Arg Lys Leu Leu Cys Leu Phe
 1 5 10 15
 Ile Leu Ala Ile Leu Leu Cys Ser Leu Ala Leu Gly Ser Val Thr
 20 25 30
 Val His Ser Ser Glu Pro Glu Val Arg Ile Pro Glu Asn Asn Pro
 35 40 45
 Val Lys Leu Ser Cys Ala Tyr Ser Gly Phe Ser Ser Pro Arg Val
 50 55 60
 Glu Trp Lys Phe Asp Gln Gly Asp Thr Thr Arg Leu Val Cys Tyr
 65 70 75
 Asn Asn Lys Ile Thr Ala Ser Tyr Glu Asp Arg Val Thr Phe Leu
 80 85 90
 Pro Thr Gly Ile Thr Phe Lys Ser Val Thr Arg Glu Asp Thr Gly
 95 100 105
 Thr Tyr Thr Cys Met Val Ser Glu Glu Gly Gly Asn Ser Tyr Gly
 110 115 120
 Glu Val Lys Val Lys Leu Ile Val Leu Val Pro Pro Ser Lys Pro
 125 130 135
 Thr Val Asn Ile Pro Ser Ser Ala Thr Ile Gly Asn Arg Ala Val
 140 145 150
 Leu Thr Cys Ser Glu Gln Asp Gly Ser Pro Pro Ser Glu Tyr Thr
 155 160 165
 Trp Phe Lys Asp Gly Ile Val Met Pro Thr Asn Pro Lys Ser Thr
 170 175 180
 Arg Ala Phe Ser Asn Ser Ser Tyr Val Leu Asn Pro Thr Thr Gly
 185 190 195
 Glu Leu Val Phe Asp Pro Leu Ser Ala Ser Asp Thr Gly Glu Tyr
 200 205 210
 Ser Cys Glu Ala Arg Asn Gly Tyr Gly Thr Pro Met Thr Ser Asn
 215 220 225
 Ala Val Arg Met Glu Ala Val Glu Arg Asn Val Gly Val Ile Val
 230 235 240

Ala	Ala	Val	Leu	Val	Thr	Leu	Ile	Leu	Leu	Gly	Ile	Leu	Val	Phe
				245					250					255
Gly	Ile	Trp	Phe	Ala	Tyr	Ser	Arg	Gly	His	Phe	Asp	Arg	Thr	Lys
				260					265					270
Lys	Gly	Thr	Ser	Ser	Lys	Lys	Val	Ile	Tyr	Ser	Gln	Pro	Ser	Ala
				275					280					285
Arg	Ser	Glu	Gly	Glu	Phe	Lys	Gln	Thr	Ser	Ser	Phe	Leu	Val	
				290					295					

<210> 120
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic Oligonucleotide Probe

<400> 120
 tcgcgagct gtgttctgtt tccc 24

<210> 121
 <211> 50
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic Oligonucleotide Probe

<400> 121
 tgatcgcat ggggacaaag gcgcaagctc gagaggaaac tggtgtgcct 50

<210> 122
 <211> 20
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic Oligonucleotide Probe

<400> 122
 acacctggtt caaagatggg 20

<210> 123
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic Oligonucleotide Probe

<400> 123
 taggaagagt tgctgaaggc acgg 24

<210> 124
 <211> 20

<212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic Oligonucleotide Probe

 <400> 124
 ttgccttact caggtgctac 20

 <210> 125
 <211> 20
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic Oligonucleotide Probe

 <400> 125
 actcagcagt ggtaggaaag 20

 <210> 126
 <211> 1210
 <212> DNA
 <213> Homo Sapien

 <400> 126
 cagcgcgtgg ccggcgccgc tgtggggaca gcatgagcgg cggttgatg 50
 gcgcaggttg gagcgtggcg aacaggggct ctgggcctgg cgctgctgct 100
 gctgctcggc ctcggaactag gcctggaggc cgccgcgagc ccgctttcca 150
 ccccgacctc tgcccaggcc gcaggcccca gctcaggctc gtgcccaccc 200
 accaagttcc agtgccgcac cagtggctta tgcgtgcccc tcacctggcg 250
 ctgcgacagg gacttggact gcagcgatgg cagcgatgag gaggagtgca 300
 ggattgagcc atgtaccag aaagggcaat gccaccgcc ccctggcctc 350
 ccctgcccct gcaccggcgt cagtgactgc tctgggggaa ctgacaagaa 400
 actgcgcaac tgcagccgcc tggcctgcct agcaggcgag ctccgttgca 450
 cgctgagcga tgactgcatt ccactcacgt ggcgctgcga cggccacca 500
 gactgtcccg actccagcga cgagctcggc tgtggaacca atgagatcct 550
 cccggaaggg gatgccacaa ccatggggcc ccctgtgacc ctggagagtg 600
 tcacctctct caggaatgcc acaaccatgg ggccccctgt gaccctggag 650
 agtgtcccct ctgtcgggaa tgccacatcc tcctctgccg gagaccagtc 700
 tggaagccca actgcctatg gggttattgc agctgctgcg gtgctcagt 750
 caagcctggt caccgccacc ctctccttt tgcctgggt ccgagcccag 800
 gagcgcctcc gccactggg gttactggg gccatgaagg agtccctgct 850

gctgtcagaa cagaagacct cgctgccctg aggacaagca cttgccacca 900
 ccgtcactca gccctgggcg tagccggaca ggaggagagc agtgatgcgg 950
 atgggtaccc gggcacacca gccctcagag acctgagttc ttctggccac 1000
 gtggaacctc gaacccgagc tcctgcagaa gtggccctgg agattgaggg 1050
 tccctggaca ctccctatgg agatccgggg agctaggatg gggaaacctgc 1100
 cacagccaga actgagggggc tggccccagg cagctcccag ggggtagaac 1150
 ggccctgtgc ttaagacact ccctgctgcc ccgtctgagg gtggcgatta 1200
 aagttgcttc 1210

<210> 127

<211> 282

<212> PRT

<213> Homo Sapien

<400> 127

Met	Ser	Gly	Gly	Trp	Met	Ala	Gln	Val	Gly	Ala	Trp	Arg	Thr	Gly	1	5	10	15
Ala	Leu	Gly	Leu	Ala	Leu	Leu	Leu	Leu	Leu	Gly	Leu	Gly	Leu	Gly	20	25	30	
Leu	Glu	Ala	Ala	Ala	Ser	Pro	Leu	Ser	Thr	Pro	Thr	Ser	Ala	Gln	35	40	45	
Ala	Ala	Gly	Pro	Ser	Ser	Gly	Ser	Cys	Pro	Pro	Thr	Lys	Phe	Gln	50	55	60	
Cys	Arg	Thr	Ser	Gly	Leu	Cys	Val	Pro	Leu	Thr	Trp	Arg	Cys	Asp	65	70	75	
Arg	Asp	Leu	Asp	Cys	Ser	Asp	Gly	Ser	Asp	Glu	Glu	Glu	Cys	Arg	80	85	90	
Ile	Glu	Pro	Cys	Thr	Gln	Lys	Gly	Gln	Cys	Pro	Pro	Pro	Pro	Gly	95	100	105	
Leu	Pro	Cys	Pro	Cys	Thr	Gly	Val	Ser	Asp	Cys	Ser	Gly	Gly	Thr	110	115	120	
Asp	Lys	Lys	Leu	Arg	Asn	Cys	Ser	Arg	Leu	Ala	Cys	Leu	Ala	Gly	125	130	135	
Glu	Leu	Arg	Cys	Thr	Leu	Ser	Asp	Asp	Cys	Ile	Pro	Leu	Thr	Trp	140	145	150	
Arg	Cys	Asp	Gly	His	Pro	Asp	Cys	Pro	Asp	Ser	Ser	Asp	Glu	Leu	155	160	165	
Gly	Cys	Gly	Thr	Asn	Glu	Ile	Leu	Pro	Glu	Gly	Asp	Ala	Thr	Thr	170	175	180	
Met	Gly	Pro	Pro	Val	Thr	Leu	Glu	Ser	Val	Thr	Ser	Leu	Arg	Asn				

	185	190	195
Ala Thr Thr Met	Gly Pro Pro Val Thr	Leu Glu Ser Val Pro	Ser
	200	205	210
Val Gly Asn Ala	Thr Ser Ser Ser Ala	Gly Asp Gln Ser Gly	Ser
	215	220	225
Pro Thr Ala Tyr	Gly Val Ile Ala Ala	Ala Ala Val Leu Ser	Ala
	230	235	240
Ser Leu Val Thr	Ala Thr Leu Leu Leu	Leu Ser Trp Leu Arg	Ala
	245	250	255
Gln Glu Arg Leu	Arg Pro Leu Gly Leu	Leu Val Ala Met Lys	Glu
	260	265	270
Ser Leu Leu Leu	Ser Glu Gln Lys Thr	Ser Leu Pro	
	275	280	

<210> 128
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic Oligonucleotide Probe

<400> 128
 aagttccagt gccgcaccag tggc 24

<210> 129
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic Oligonucleotide Probe

<400> 129
 ttggttcac agccgagctc gtcg 24

<210> 130
 <211> 50
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic Oligonucleotide Probe

<400> 130
 gaggaggagt gcaggattga gccatgtacc cagaaagggc aatgcccacc 50

<210> 131
 <211> 1843
 <212> DNA
 <213> Homo Sapien

<220>
 <221> unsure

<222> 1837

<223> unknown base

<400> 131

cccacgcgtc cggtctcgct cgctcgcgca gcggcggcag cagaggtcgc 50
gcacagatgc gggtttagact ggcgggggga ggaggcggag gagggaagga 100
agctgcatgc atgagaccca cagactcttg caagctggat gccctctgtg 150
gatgaaagat gtatcatgga atgaaccoga gcaatggaga tggatttcta 200
gagcagcagc agcagcagca gcaacctcag tccccccaga gactcttggc 250
cgtgatcctg tggtttcagc tggcgctgtg cttcggccct gcacagctca 300
cgggcggggt cgatgacctt caagtgtgtg ctgaccccg g cattcccgag 350
aatggcttca ggacccccag cggagggggt ttctttgaag gctctgtagc 400
ccgattttcac tgccaagacg gattcaagct gaaggcgct acaaagagac 450
tgtgtttgaa gcattttaat ggaaccctag gctggatccc aagtataat 500
tccatctgtg tgcaagaaga ttgccgtatc cctcaaatac aagatgctga 550
gattcataac aagacatata gacatggaga gaagctaata atcacttgct 600
atgaaggatt caagatccgg taccgccgac tacacaatat ggtttcatta 650
tgtcgcgatg atggaacgtg gaataatctg cccatctgtc aaggctgcct 700
gagacctcta gcctcttcta atggctatgt aaacatctct gagctccaga 750
cctccttccc ggtggggact gtgatctcct atcgctgctt tcccggattt 800
aaacttgatg ggtctgcgta tcttgagtgc ttacaaaacc ttatctggct 850
gtccagccca ccccggtgcc ttgctctgga agcccaagtc tgccactac 900
ctccaatggt gagtcacgga gatttcgtct gccacccgcg gccttgtag 950
cgctacaacc acggaactgt ggtggagttt tactgcgatc ctggctacag 1000
cctcaccagc gactacaagt acatcacctg ccagtatgga gagggtttc 1050
cttcttatca agtctactgc atcaaatcag agcaaactg gccagcacc 1100
catgagaccc tcctgaccac gtggaagatt gtggcggttca cggcaaccag 1150
tgtgctgctg gtgctgctgc tcgtcatcct ggccaggatg ttccagacca 1200
agttcaaggc ccactttccc cccagggggc ctccccggag ttccagcagt 1250
gacctgact ttgtggtggt agacggcgtg cccgtcatgc tccgtccta 1300
tgacgaagct gtgagtggcg gcttgagtgc cttaggcccc gggtacatgg 1350
cctctgtggg ccagggtgc cccttaccg tggacgacca gagccccca 1400

gcataccccg gctcagggga cacggacaca ggcccagggg agtcagaaac 1450
ctgtgacagc gtctcagget cttctgagct gtcocaaagt ctgtattcac 1500
ctcccagggtg ccaagagagc acccaccctg cttcggacaa ccctgacata 1550
attgccagca cggcagagga ggtggcatcc accagcccag gcatccatca 1600
tgcccactgg gtgttgttcc taagaaactg attgattaaa aaatttccca 1650
aagtgtcctg aagtgtctct tcaaatacat gttgatctgt ggagttgatt 1700
cctttccttc tcttggtttt agacaaatgt aaacaaagct ctgataccta 1750
aaattgctat gctgatagag tggtagagggc tggaagcttg atcaagtcct 1800
gtttcttctt gacacagact gattaataat taaaagnaaa aaa 1843

<210> 132

<211> 490

<212> PRT

<213> Homo Sapien

<400> 132

Met	Tyr	His	Gly	Met	Asn	Pro	Ser	Asn	Gly	Asp	Gly	Phe	Leu	Glu
1				5					10					15
Gln	Gln	Gln	Gln	Gln	Gln	Gln	Pro	Gln	Ser	Pro	Gln	Arg	Leu	Leu
				20					25					30
Ala	Val	Ile	Leu	Trp	Phe	Gln	Leu	Ala	Leu	Cys	Phe	Gly	Pro	Ala
				35					40					45
Gln	Leu	Thr	Gly	Gly	Phe	Asp	Asp	Leu	Gln	Val	Cys	Ala	Asp	Pro
				50					55					60
Gly	Ile	Pro	Glu	Asn	Gly	Phe	Arg	Thr	Pro	Ser	Gly	Gly	Val	Phe
				65					70					75
Phe	Glu	Gly	Ser	Val	Ala	Arg	Phe	His	Cys	Gln	Asp	Gly	Phe	Lys
				80					85					90
Leu	Lys	Gly	Ala	Thr	Lys	Arg	Leu	Cys	Leu	Lys	His	Phe	Asn	Gly
				95					100					105
Thr	Leu	Gly	Trp	Ile	Pro	Ser	Asp	Asn	Ser	Ile	Cys	Val	Gln	Glu
				110					115					120
Asp	Cys	Arg	Ile	Pro	Gln	Ile	Glu	Asp	Ala	Glu	Ile	His	Asn	Lys
				125					130					135
Thr	Tyr	Arg	His	Gly	Glu	Lys	Leu	Ile	Ile	Thr	Cys	His	Glu	Gly
				140					145					150
Phe	Lys	Ile	Arg	Tyr	Pro	Asp	Leu	His	Asn	Met	Val	Ser	Leu	Cys
				155					160					165
Arg	Asp	Asp	Gly	Thr	Trp	Asn	Asn	Leu	Pro	Ile	Cys	Gln	Gly	Cys
				170					175					180

Leu	Arg	Pro	Leu	Ala	Ser	Ser	Asn	Gly	Tyr	Val	Asn	Ile	Ser	Glu	
				185					190					195	
Leu	Gln	Thr	Ser	Phe	Pro	Val	Gly	Thr	Val	Ile	Ser	Tyr	Arg	Cys	
				200					205					210	
Phe	Pro	Gly	Phe	Lys	Leu	Asp	Gly	Ser	Ala	Tyr	Leu	Glu	Cys	Leu	
				215					220					225	
Gln	Asn	Leu	Ile	Trp	Ser	Ser	Ser	Pro	Pro	Arg	Cys	Leu	Ala	Leu	
				230					235					240	
Glu	Ala	Gln	Val	Cys	Pro	Leu	Pro	Pro	Met	Val	Ser	His	Gly	Asp	
				245					250					255	
Phe	Val	Cys	His	Pro	Arg	Pro	Cys	Glu	Arg	Tyr	Asn	His	Gly	Thr	
				260					265					270	
Val	Val	Glu	Phe	Tyr	Cys	Asp	Pro	Gly	Tyr	Ser	Leu	Thr	Ser	Asp	
				275					280					285	
Tyr	Lys	Tyr	Ile	Thr	Cys	Gln	Tyr	Gly	Glu	Trp	Phe	Pro	Ser	Tyr	
				290					295					300	
Gln	Val	Tyr	Cys	Ile	Lys	Ser	Glu	Gln	Thr	Trp	Pro	Ser	Thr	His	
				305					310					315	
Glu	Thr	Leu	Leu	Thr	Thr	Trp	Lys	Ile	Val	Ala	Phe	Thr	Ala	Thr	
				320					325					330	
Ser	Val	Leu	Leu	Val	Leu	Leu	Leu	Val	Ile	Leu	Ala	Arg	Met	Phe	
				335					340					345	
Gln	Thr	Lys	Phe	Lys	Ala	His	Phe	Pro	Pro	Arg	Gly	Pro	Pro	Arg	
				350					355					360	
Ser	Ser	Ser	Ser	Asp	Pro	Asp	Phe	Val	Val	Val	Asp	Gly	Val	Pro	
				365					370					375	
Val	Met	Leu	Pro	Ser	Tyr	Asp	Glu	Ala	Val	Ser	Gly	Gly	Leu	Ser	
				380					385					390	
Ala	Leu	Gly	Pro	Gly	Tyr	Met	Ala	Ser	Val	Gly	Gln	Gly	Cys	Pro	
				395					400					405	
Leu	Pro	Val	Asp	Asp	Gln	Ser	Pro	Pro	Ala	Tyr	Pro	Gly	Ser	Gly	
				410					415					420	
Asp	Thr	Asp	Thr	Gly	Pro	Gly	Glu	Ser	Glu	Thr	Cys	Asp	Ser	Val	
				425					430					435	
Ser	Gly	Ser	Ser	Glu	Leu	Leu	Gln	Ser	Leu	Tyr	Ser	Pro	Pro	Arg	
				440					445					450	
Cys	Gln	Glu	Ser	Thr	His	Pro	Ala	Ser	Asp	Asn	Pro	Asp	Ile	Ile	
				455					460					465	
Ala	Ser	Thr	Ala	Glu	Glu	Val	Ala	Ser	Thr	Ser	Pro	Gly	Ile	His	

	470	475	480
--	-----	-----	-----

His Ala His Trp Val Leu Phe Leu Arg Asn
 485 490

<210> 133
 <211> 23
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic Oligonucleotide Probe

<400> 133
 atctcctatc gctgctttcc egg 23

<210> 134
 <211> 23
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic Oligonucleotide Probe

<400> 134
 agccaggatc gcagtaaaac tcc 23

<210> 135
 <211> 50
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic Oligonucleotide Probe

<400> 135
 atttaaacctt gatgggtctg cgtatcttga gtgcttaca aaccttatct 50

<210> 136
 <211> 1815
 <212> DNA
 <213> Homo Sapien

<400> 136
 cccacgcgtc cgctccgcgc cctccccccc gcctcccgtg cggcccgctc 50
 gtggcctaga gatgctgctg ccgcgggttg agttgtcgcg cacgcctctg 100
 cccgccagcc cgctccaccg ccgtagcgcc cgagtgtcgg ggggcgcacc 150
 cgagtcgggc catgaggccg ggaaccgcgc tacaggccgt gctgctggcc 200
 gtgctgctgg tggggctgcg ggccgcgacg ggtcgccctg tgagtgcctc 250
 ggatttggac ctgagaggag ggcagccagt ctgccgggga gggacacaga 300
 ggccttgcta taaagtcatt tacttccatg atacttctcg aagactgaac 350
 tttgaggaag ccaaagaagc ctgcaggagg gatggaggcc agctagtcag 400

catcgagtct gaagatgaac agaaactgat agaaaagttc attgaaaacc 450
tcttgccatc tgatggtgac ttctggattg ggctcaggag gcgtgaggag 500
aaacaaagca atagcacagc ctgccaggac ctttatgctt ggactgatgg 550
cagcatatca caatttagga actggtatgt ggatgagccg tcctgcggca 600
gcgagggtctg cgtggtcatg taccatcagc catcggcacc cgctggcatc 650
ggaggcccct acatgttcca gtggaatgat gaccggtgca acatgaagaa 700
caatttcatt tgcaaattt ctgatgagaa accagcagtt ctttctagag 750
aagctgaagg tgaggaaaca gagctgacaa cacctgtact tccagaagaa 800
acacaggaag aagatgccaa aaaaacattt aaagaaagta gagaagctgc 850
cttgaatctg gcctacatcc taatccccag cattccccctt ctctcctcc 900
ttgtgggtcac cacagttgta tgttgggttt ggatctgtag aaaaagaaaa 950
cgggagcagc cagaccctag cacaagaag caacacacca tctggccctc 1000
tcctcaccag ggaaacagcc cggacctaga ggtctacaat gtcataagaa 1050
aacaaagcga agctgactta gctgagaccc ggccagacct gaagaatatt 1100
tcattccgag tgtgttcggg agaagccact cccgatgaca tgtcttgtga 1150
ctatgacaac atggctgtga acccatcaga aagtgggttt gtgactctgg 1200
tgagcgtgga gagtggattt gtgaccaatg acatttatga gttctcccca 1250
gaccaaattg ggaggagtaa ggagtctgga tgggtggaaa atgaaatata 1300
tggttattag gacatataaa aaactgaaac tgacaacaat ggaaaagaaa 1350
tgataagcaa aatcctctta ttttctataa ggaaaataca cagaaggtct 1400
atgaacaagc ttagatcagg tcctgtggat gagcatgtgg tccccacgac 1450
ctcctgttgg acccccacgt tttggctgta tcctttatcc cagccagtca 1500
tccagctcga cttatgaga aggtaccttg cccaggtctg gcacatagta 1550
gagtctcaat aaatgtcact tggttggttg tatctaactt ttaagggaca 1600
gagctttacc tggcagtgat aaagatgggc tgtggagctt ggaaaaccac 1650
ctctgttttc cttgctctat acagcagcac atattatcat acagacagaa 1700
aatccagaat cttttcaaag cccacatatg gtagcacagg ttggcctgtg 1750
catcggcaat tctcatatct gtttttttca aagaataaaa tcaaataaag 1800
agcaggaaaa aaaaa 1815

<210> 137

<211> 382
 <212> PRT
 <213> Homo Sapien

<400> 137

Met	Arg	Pro	Gly	Thr	Ala	Leu	Gln	Ala	Val	Leu	Leu	Ala	Val	Leu	1	5	10	15
Leu	Val	Gly	Leu	Arg	Ala	Ala	Thr	Gly	Arg	Leu	Leu	Ser	Ala	Ser	20	25	30	
Asp	Leu	Asp	Leu	Arg	Gly	Gly	Gln	Pro	Val	Cys	Arg	Gly	Gly	Thr	35	40	45	
Gln	Arg	Pro	Cys	Tyr	Lys	Val	Ile	Tyr	Phe	His	Asp	Thr	Ser	Arg	50	55	60	
Arg	Leu	Asn	Phe	Glu	Glu	Ala	Lys	Glu	Ala	Cys	Arg	Arg	Asp	Gly	65	70	75	
Gly	Gln	Leu	Val	Ser	Ile	Glu	Ser	Glu	Asp	Glu	Gln	Lys	Leu	Ile	80	85	90	
Glu	Lys	Phe	Ile	Glu	Asn	Leu	Leu	Pro	Ser	Asp	Gly	Asp	Phe	Trp	95	100	105	
Ile	Gly	Leu	Arg	Arg	Arg	Glu	Glu	Lys	Gln	Ser	Asn	Ser	Thr	Ala	110	115	120	
Cys	Gln	Asp	Leu	Tyr	Ala	Trp	Thr	Asp	Gly	Ser	Ile	Ser	Gln	Phe	125	130	135	
Arg	Asn	Trp	Tyr	Val	Asp	Glu	Pro	Ser	Cys	Gly	Ser	Glu	Val	Cys	140	145	150	
Val	Val	Met	Tyr	His	Gln	Pro	Ser	Ala	Pro	Ala	Gly	Ile	Gly	Gly	155	160	165	
Pro	Tyr	Met	Phe	Gln	Trp	Asn	Asp	Asp	Arg	Cys	Asn	Met	Lys	Asn	170	175	180	
Asn	Phe	Ile	Cys	Lys	Tyr	Ser	Asp	Glu	Lys	Pro	Ala	Val	Pro	Ser	185	190	195	
Arg	Glu	Ala	Glu	Gly	Glu	Glu	Thr	Glu	Leu	Thr	Thr	Pro	Val	Leu	200	205	210	
Pro	Glu	Glu	Thr	Gln	Glu	Glu	Asp	Ala	Lys	Lys	Thr	Phe	Lys	Glu	215	220	225	
Ser	Arg	Glu	Ala	Ala	Leu	Asn	Leu	Ala	Tyr	Ile	Leu	Ile	Pro	Ser	230	235	240	
Ile	Pro	Leu	Leu	Leu	Leu	Val	Val	Thr	Thr	Val	Val	Cys	Trp	245	250	255		
Val	Trp	Ile	Cys	Arg	Lys	Arg	Lys	Arg	Glu	Gln	Pro	Asp	Pro	Ser	260	265	270	

Thr	Lys	Lys	Gln	His	Thr	Ile	Trp	Pro	Ser	Pro	His	Gln	Gly	Asn	
				275					280					285	
Ser	Pro	Asp	Leu	Glu	Val	Tyr	Asn	Val	Ile	Arg	Lys	Gln	Ser	Glu	
				290					295					300	
Ala	Asp	Leu	Ala	Glu	Thr	Arg	Pro	Asp	Leu	Lys	Asn	Ile	Ser	Phe	
				305					310					315	
Arg	Val	Cys	Ser	Gly	Glu	Ala	Thr	Pro	Asp	Asp	Met	Ser	Cys	Asp	
				320					325					330	
Tyr	Asp	Asn	Met	Ala	Val	Asn	Pro	Ser	Glu	Ser	Gly	Phe	Val	Thr	
				335					340					345	
Leu	Val	Ser	Val	Glu	Ser	Gly	Phe	Val	Thr	Asn	Asp	Ile	Tyr	Glu	
				350					355					360	
Phe	Ser	Pro	Asp	Gln	Met	Gly	Arg	Ser	Lys	Glu	Ser	Gly	Trp	Val	
				365					370					375	
Glu	Asn	Glu	Ile	Tyr	Gly	Tyr									
				380											

<210> 138

<211> 50

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Oligonucleotide Probe

<400> 138

gttcattgaa aacctcttgc catctgatgg tgacttctgg attgggctca 50

<210> 139

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Oligonucleotide Probe

<400> 139

aagccaaaga agcctgcagg aggg 24

<210> 140

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Oligonucleotide Probe

<400> 140

cagtccaagc ataaaggtcc tggc 24

<210> 141

<211> 1514

<212> DNA

<213> Homo Sapien

<400> 141

```
gggggtctccc tcagggccgg gaggcacagc ggtccctgct tgctgaaggg 50
ctggatgtac gcatccgcag gttcccgcgg acttgggggc gcccgtgag 100
ccccggcgcc cgcagaagac ttgtgtttgc ctctgcagc ctcaaccgg 150
agggcagcga gggcctacca ccatgatcac tgggtgtgttc agcatgcgct 200
tgtggacccc agtggggcgtc ctgacctgcg tggcgactg cctgcaccag 250
cggcgggtgg ccctggccga gctgcaggag gccgatggcc agtgtccggt 300
cgaccgcagc ctgctgaagt tgaaaatggt gcaggtcgtg tttcgacacg 350
gggctcggag tcctctcaag ccgctcccgc tggaggagca ggtagagtgg 400
aacccccagc tattagaggt cccaccccaa actcagtttg attacacagt 450
caccaatcta gctgggtggc cgaaaccata ttctccttac gactctcaat 500
accatgagac caccctgaag gggggcatgt ttgctgggca gctgaccaag 550
gtgggcatgc agcaaagtgt tgccttggga gagagactga ggaagaacta 600
tgtggaagac attccctttc tttaccaac cttcaaccca caggaggtct 650
ttattcgttc cactaacatt tttcggaatc tggagtccac ccgttgtttg 700
ctggctgggc ttttccagtg tcagaaagaa ggaccatca tcatccacac 750
tgatgaagca gattcagaag tcttgtatcc caactaccaa agctgctgga 800
gcctgaggca gagaaccaga ggccggaggc agactgcctc tttacagcca 850
ggaatctcag aggatattgaa aaaggtgaag gacaggatgg gcattgacag 900
tagtgataaa gtggacttct tcatcctcct ggacaacgtg gctgccgagc 950
aggcacacaa cctcccaagc tgcccatgc tgaagagatt tgcacggatg 1000
atcgaacaga gagctgtgga cacatccttg tacatactgc ccaaggaaga 1050
cagggaaagt cttcagatgg cagtaggcc attcctccac atcctagaga 1100
gcaacctgct gaaagccatg gactctgcca ctgccccga caagatcaga 1150
aagctgtatc tctatgcggc tcatgatgtg accttcatac cgctcttaat 1200
gacctggggg atttttgacc acaaattggc accgtttgct gttgacctga 1250
ccatggaact ttaccagcac ctggaatcta aggagtgggt tgtgcagctc 1300
tattaccacg ggaaggagca ggtgccgaga gggtgccctg atgggctctg 1350
cccgtgggac atgttcttga atgcatgtc agtttatacc ttaagcccag 1400
```

aaaaataacca tgcactctgc tctcaaactc aggtgatgga agttggaaat 1450
gaagagtaac tgatttataa aagcaggatg tgttgatttt aaaataaaagt 1500
gcctttatac aatg 1514

<210> 142
<211> 428
<212> PRT
<213> Homo Sapien

<400> 142
Met Ile Thr Gly Val Phe Ser Met Arg Leu Trp Thr Pro Val Gly
1 5 10 15
Val Leu Thr Ser Leu Ala Tyr Cys Leu His Gln Arg Arg Val Ala
20 25 30
Leu Ala Glu Leu Gln Glu Ala Asp Gly Gln Cys Pro Val Asp Arg
35 40 45
Ser Leu Leu Lys Leu Lys Met Val Gln Val Val Phe Arg His Gly
50 55 60
Ala Arg Ser Pro Leu Lys Pro Leu Pro Leu Glu Glu Gln Val Glu
65 70 75
Trp Asn Pro Gln Leu Leu Glu Val Pro Pro Gln Thr Gln Phe Asp
80 85 90
Tyr Thr Val Thr Asn Leu Ala Gly Gly Pro Lys Pro Tyr Ser Pro
95 100 105
Tyr Asp Ser Gln Tyr His Glu Thr Thr Leu Lys Gly Gly Met Phe
110 115 120
Ala Gly Gln Leu Thr Lys Val Gly Met Gln Gln Met Phe Ala Leu
125 130 135
Gly Glu Arg Leu Arg Lys Asn Tyr Val Glu Asp Ile Pro Phe Leu
140 145 150
Ser Pro Thr Phe Asn Pro Gln Glu Val Phe Ile Arg Ser Thr Asn
155 160 165
Ile Phe Arg Asn Leu Glu Ser Thr Arg Cys Leu Leu Ala Gly Leu
170 175 180
Phe Gln Cys Gln Lys Glu Gly Pro Ile Ile Ile His Thr Asp Glu
185 190 195
Ala Asp Ser Glu Val Leu Tyr Pro Asn Tyr Gln Ser Cys Trp Ser
200 205 210
Leu Arg Gln Arg Thr Arg Gly Arg Arg Gln Thr Ala Ser Leu Gln
215 220 225
Pro Gly Ile Ser Glu Asp Leu Lys Lys Val Lys Asp Arg Met Gly

230	235	240
Ile Asp Ser Ser Asp Lys Val Asp Phe	Phe Ile Leu Leu Asp Asn	
245	250	255
Val Ala Ala Glu Gln Ala His Asn Leu	Pro Ser Cys Pro Met Leu	
260	265	270
Lys Arg Phe Ala Arg Met Ile Glu Gln	Arg Ala Val Asp Thr Ser	
275	280	285
Leu Tyr Ile Leu Pro Lys Glu Asp Arg	Glu Ser Leu Gln Met Ala	
290	295	300
Val Gly Pro Phe Leu His Ile Leu Glu	Ser Asn Leu Leu Lys Ala	
305	310	315
Met Asp Ser Ala Thr Ala Pro Asp Lys	Ile Arg Lys Leu Tyr Leu	
320	325	330
Tyr Ala Ala His Asp Val Thr Phe Ile	Pro Leu Leu Met Thr Leu	
335	340	345
Gly Ile Phe Asp His Lys Trp Pro Pro	Phe Ala Val Asp Leu Thr	
350	355	360
Met Glu Leu Tyr Gln His Leu Glu Ser	Lys Glu Trp Phe Val Gln	
365	370	375
Leu Tyr Tyr His Gly Lys Glu Gln Val	Pro Arg Gly Cys Pro Asp	
380	385	390
Gly Leu Cys Pro Leu Asp Met Phe Leu	Asn Ala Met Ser Val Tyr	
395	400	405
Thr Leu Ser Pro Glu Lys Tyr His Ala	Leu Cys Ser Gln Thr Gln	
410	415	420
Val Met Glu Val Gly Asn Glu Glu		
425		

<210> 143

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Oligonucleotide Probe

<400> 143

ccaactacca aagctgctgg agcc 24

<210> 144

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Oligonucleotide Probe

<400> 144
gcagctctat taccacggga agga 24

<210> 145
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic Oligonucleotide Probe

<400> 145
tccttcccgt ggtaatagag ctgc 24

<210> 146
<211> 45
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic Oligonucleotide Probe

<400> 146
ggcagagaac cagaggccgg aggagactgc ctctttacag ccagg 45

<210> 147
<211> 1686
<212> DNA
<213> Homo Sapien

<400> 147
ctcctcttaa cataacttgca gctaaaacta aatattgctg cttggggacc 50
tccttctagc cttaaatttc agctcatcac cttcacctgc cttgggtcatg 100
gctctgctat tctccttgat ccttgccatt tgcaccagac ctggattcct 150
agcgtctcca tctggagtgc ggctgggtggg gggcctccac cgctgtgaag 200
ggcgggtgga ggtggaacag aaaggccagt ggggcaccgt gtgtgatgac 250
ggctgggaca ttaaggacgt ggctgtgttg tgccgggagc tgggctgtgg 300
agctgccagc ggaacccta gtggtatttt gtatgagcca ccagcagaaa 350
aagagcaaaa ggtcctcatc caatcagtca gttgcacagg aacagaagat 400
acattggctc agtgtgagca agaagaagtt tatgattgtt cacatgatga 450
agatgctggg gcatcgtgtg agaaccaga gagctctttc tccccagtcc 500
cagaggggtgt caggctggct gacggccctg ggcattgcaa gggacgcgtg 550
gaagtgaagc accagaacca gtggtatacc gtgtgccaga caggctggag 600
cctccgggcc gcaaaggtgg tgtgccggca gctgggatgt gggagggctg 650
tactgactca aaaacgctgc aacaagcatg cctatggccg aaaacccatc 700

tggctgagcc agatgtcatg ctcaggacga gaagcaaccc ttcaggattg 750
 cccttctggg ccttggggga agaacacctg caaccatgat gaagacacgt 800
 gggtcgaatg tgaagatccc tttgacttga gactagtagg aggagacaac 850
 ctctgctctg ggcgactgga ggtgctgcac aagggcgtat ggggctctgt 900
 ctgtgatgac aactggggag aaaaggagga ccagggtgga tgcaagcaac 950
 tgggctgtgg gaagtccttc tctccctcct tcagagaccg gaaatgctat 1000
 ggccctgggg ttggccgcat ctggctggat aatgttcgtt gctcagggga 1050
 ggagcagtcc ctggagcagt gccagcacag attttggggg tttcacgact 1100
 gcacccacca ggaagatgtg gctgtcatct gctcagtga ggtgggcatc 1150
 atctaactctg ttgagtgcct gaatagaaga aaaacacaga agaagggagc 1200
 atttactgtc tacatgactg catgggatga acactgatct tcttctgccc 1250
 ttggactggg acttatactt ggtgcccctg attctcaggc cttcagagtt 1300
 ggatcagaac ttacaacatc aggtctagtt ctcaggccat cagacatagt 1350
 ttggaactac atcaccacct ttcctatgtc tccacattgc acacagcaga 1400
 ttcccagcct ccataattgt gtgtatcaac tacttaaata cattctcaca 1450
 cacacacaca cacacacaca cacacacaca cacacatata ccatttgtcc 1500
 tgtttctctg aagaactctg acaaaataca gattttggta ctgaaagaga 1550
 ttctagagga acggaatttt aaggataaat tttctgaatt gggttatgggg 1600
 tttctgaaat tggctctata atctaattag atataaaaatt ctggtaactt 1650
 tatttacaat aataaagata gcactatgtg ttcaaa 1686

<210> 148

<211> 347

<212> PRT

<213> Homo Sapien

<400> 148

Met	Ala	Leu	Leu	Phe	Ser	Leu	Ile	Leu	Ala	Ile	Cys	Thr	Arg	Pro
1				5					10					15

Gly	Phe	Leu	Ala	Ser	Pro	Ser	Gly	Val	Arg	Leu	Val	Gly	Gly	Leu
				20					25					30

His	Arg	Cys	Glu	Gly	Arg	Val	Glu	Val	Glu	Gln	Lys	Gly	Gln	Trp
			35						40					45

Gly	Thr	Val	Cys	Asp	Asp	Gly	Trp	Asp	Ile	Lys	Asp	Val	Ala	Val
			50						55					60

Leu Cys Arg Glu Leu Gly Cys Gly Ala Ala Ser Gly Thr Pro Ser

					65						70						75
Gly	Ile	Leu	Tyr	Glu	Pro	Pro	Ala	Glu	Lys	Glu	Gln	Lys	Val	Leu			
				80					85					90			
Ile	Gln	Ser	Val	Ser	Cys	Thr	Gly	Thr	Glu	Asp	Thr	Leu	Ala	Gln			
				95					100					105			
Cys	Glu	Gln	Glu	Glu	Val	Tyr	Asp	Cys	Ser	His	Asp	Glu	Asp	Ala			
				110					115					120			
Gly	Ala	Ser	Cys	Glu	Asn	Pro	Glu	Ser	Ser	Phe	Ser	Pro	Val	Pro			
				125					130					135			
Glu	Gly	Val	Arg	Leu	Ala	Asp	Gly	Pro	Gly	His	Cys	Lys	Gly	Arg			
				140					145					150			
Val	Glu	Val	Lys	His	Gln	Asn	Gln	Trp	Tyr	Thr	Val	Cys	Gln	Thr			
				155					160					165			
Gly	Trp	Ser	Leu	Arg	Ala	Ala	Lys	Val	Val	Cys	Arg	Gln	Leu	Gly			
				170					175					180			
Cys	Gly	Arg	Ala	Val	Leu	Thr	Gln	Lys	Arg	Cys	Asn	Lys	His	Ala			
				185					190					195			
Tyr	Gly	Arg	Lys	Pro	Ile	Trp	Leu	Ser	Gln	Met	Ser	Cys	Ser	Gly			
				200					205					210			
Arg	Glu	Ala	Thr	Leu	Gln	Asp	Cys	Pro	Ser	Gly	Pro	Trp	Gly	Lys			
				215					220					225			
Asn	Thr	Cys	Asn	His	Asp	Glu	Asp	Thr	Trp	Val	Glu	Cys	Glu	Asp			
				230					235					240			
Pro	Phe	Asp	Leu	Arg	Leu	Val	Gly	Gly	Asp	Asn	Leu	Cys	Ser	Gly			
				245					250					255			
Arg	Leu	Glu	Val	Leu	His	Lys	Gly	Val	Trp	Gly	Ser	Val	Cys	Asp			
				260					265					270			
Asp	Asn	Trp	Gly	Glu	Lys	Glu	Asp	Gln	Val	Val	Cys	Lys	Gln	Leu			
				275					280					285			
Gly	Cys	Gly	Lys	Ser	Leu	Ser	Pro	Ser	Phe	Arg	Asp	Arg	Lys	Cys			
				290					295					300			
Tyr	Gly	Pro	Gly	Val	Gly	Arg	Ile	Trp	Leu	Asp	Asn	Val	Arg	Cys			
				305					310					315			
Ser	Gly	Glu	Glu	Gln	Ser	Leu	Glu	Gln	Cys	Gln	His	Arg	Phe	Trp			
				320					325					330			
Gly	Phe	His	Asp	Cys	Thr	His	Gln	Glu	Asp	Val	Ala	Val	Ile	Cys			
				335					340					345			
Ser	Val																

<210> 149
 <211> 24
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic Oligonucleotide Probe

 <400> 149
 ttcagctcat caccttcacc tgcc 24

 <210> 150
 <211> 24
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic Oligonucleotide Probe

 <400> 150
 ggctcataca aaataccact aggg 24

 <210> 151
 <211> 50
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic Oligonucleotide Probe

 <400> 151
 gggcctccac cgctgtgaag ggcgggtgga ggtggaacag aaaggccagt 50

 <210> 152
 <211> 1427
 <212> DNA
 <213> Homo Sapien

 <400> 152
 actgcactcg gttctatcga ttgaattccc cggggatcct ctagagatcc 50

 ctcgacctcg acccacgcgt ccgcggacgc gtgggcggac gcgtgggccg 100

 gctaccagga agagtctgcc gaaggtgaag gccatggact tcatcacctc 150

 cacagccatc ctgcccctgc tgttcggctg cctgggcgtc ttcggcctct 200

 tccggctgct gcagtgggtg cgcgggaagg cctacctgcg gaatgctgtg 250

 gtgggtgatca caggcgccac ctcagggtg ggcaaagaat gtgcaaaagt 300

 cttctatgct gcgggtgcta aactggtgct ctgtggccgg aatggtgggg 350

 ccctagaaga gctcatcaga gaacttaccg cttctcatgc caccaagggtg 400

 cagacacaca agccttactt ggtgaccttc gacctcacag actctggggc 450

 catagttgca gcagcagctg agatcctgca gtgctttggc tatgtcgaca 500

tacttgtcaa caatgctggg atcagctacc gtggtaccat catggacacc 550
acagtggatg tggacaagag ggtcatggag acaaactact ttggcccagt 600
tgctctaacg aaagcactcc tgccctccat gatcaagagg aggcaaggcc 650
acattgtcgc catcagcagc atccagggca agatgagcat tccttttcga 700
tcagcatatg cagcctccaa gcacgcaacc caggctttct ttgactgtct 750
gcgtagccgag atggaacagt atgaaattga ggtgaccgtc atcagccccg 800
gctacatcca caccaacctc tctgtaaatg ccatcaccgc ggatggatct 850
aggtatggag ttatggacac caccacagcc cagggccgaa gcctgtgga 900
ggtggcccag gatgttcttg ctgctgtggg gaagaagaag aaagatgtga 950
tcctggctga cttactgcct tccttggtcg tttatcttcg aactctggct 1000
cctgggctct tcttcagcct catggcctcc agggccagaa aagagcggaa 1050
atccaagaac tcctagtact ctgaccagcc agggccaggg cagagaagca 1100
gcactcttag gcttgcttac tctacaaggg acagttgcat ttgttgagac 1150
tttaatggag atttgtctca caagtgggaa agactgaaga aacacatctc 1200
gtgcagatct gctggcagag gacaatcaaa aacgacaaca agcttcttcc 1250
cagggtgagg ggaaacactt aaggaataaa tatggagctg gggtttaaca 1300
ctaaaaacta gaaataaaca tctcaaacag taaaaaaaaa aaaaaagggc 1350
ggccgcgact ctagagtcga cctgcagaag cttggccgcc atggcccaac 1400
ttgtttattg cagcttataa tggttac 1427

<210> 153

<211> 310

<212> PRT

<213> Homo Sapien

<400> 153

Met	Asp	Phe	Ile	Thr	Ser	Thr	Ala	Ile	Leu	Pro	Leu	Leu	Phe	Gly
1				5					10					15
Cys	Leu	Gly	Val	Phe	Gly	Leu	Phe	Arg	Leu	Leu	Gln	Trp	Val	Arg
			20						25					30
Gly	Lys	Ala	Tyr	Leu	Arg	Asn	Ala	Val	Val	Val	Ile	Thr	Gly	Ala
			35						40					45
Thr	Ser	Gly	Leu	Gly	Lys	Glu	Cys	Ala	Lys	Val	Phe	Tyr	Ala	Ala
			50						55					60
Gly	Ala	Lys	Leu	Val	Leu	Cys	Gly	Arg	Asn	Gly	Gly	Ala	Leu	Glu
			65						70					75

Glu	Leu	Ile	Arg	Glu	Leu	Thr	Ala	Ser	His	Ala	Thr	Lys	Val	Gln	80	85	90
Thr	His	Lys	Pro	Tyr	Leu	Val	Thr	Phe	Asp	Leu	Thr	Asp	Ser	Gly	95	100	105
Ala	Ile	Val	Ala	Ala	Ala	Glu	Ile	Leu	Gln	Cys	Phe	Gly	Tyr		110	115	120
Val	Asp	Ile	Leu	Val	Asn	Asn	Ala	Gly	Ile	Ser	Tyr	Arg	Gly	Thr	125	130	135
Ile	Met	Asp	Thr	Thr	Val	Asp	Val	Asp	Lys	Arg	Val	Met	Glu	Thr	140	145	150
Asn	Tyr	Phe	Gly	Pro	Val	Ala	Leu	Thr	Lys	Ala	Leu	Leu	Pro	Ser	155	160	165
Met	Ile	Lys	Arg	Arg	Gln	Gly	His	Ile	Val	Ala	Ile	Ser	Ser	Ile	170	175	180
Gln	Gly	Lys	Met	Ser	Ile	Pro	Phe	Arg	Ser	Ala	Tyr	Ala	Ala	Ser	185	190	195
Lys	His	Ala	Thr	Gln	Ala	Phe	Phe	Asp	Cys	Leu	Arg	Ala	Glu	Met	200	205	210
Glu	Gln	Tyr	Glu	Ile	Glu	Val	Thr	Val	Ile	Ser	Pro	Gly	Tyr	Ile	215	220	225
His	Thr	Asn	Leu	Ser	Val	Asn	Ala	Ile	Thr	Ala	Asp	Gly	Ser	Arg	230	235	240
Tyr	Gly	Val	Met	Asp	Thr	Thr	Thr	Ala	Gln	Gly	Arg	Ser	Pro	Val	245	250	255
Glu	Val	Ala	Gln	Asp	Val	Leu	Ala	Ala	Val	Gly	Lys	Lys	Lys	Lys	260	265	270
Asp	Val	Ile	Leu	Ala	Asp	Leu	Leu	Pro	Ser	Leu	Ala	Val	Tyr	Leu	275	280	285
Arg	Thr	Leu	Ala	Pro	Gly	Leu	Phe	Phe	Ser	Leu	Met	Ala	Ser	Arg	290	295	300
Ala	Arg	Lys	Glu	Arg	Lys	Ser	Lys	Asn	Ser						305	310	

<210> 154

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Oligonucleotide Probe

<400> 154

ggtgctaaac tggctgctctg tggc 24

<210> 155
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic Oligonucleotide Probe

<400> 155
cagggcaaga tgagcattcc 20

<210> 156
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic Oligonucleotide Probe

<400> 156
tcatactggt ccactctcgac acgc 24

<210> 157
<211> 50
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic Oligonucleotide Probe

<400> 157
aatggtgggg ccctagaaga gctcatcaga gaactcaccg cttctcatgc 50

<210> 158
<211> 1771
<212> DNA
<213> Homo Sapien

<400> 158
cccacgcgtc cgctggtggt agatcgagca accctctaaa agcagtttag 50

agtggtaaaa aaaaaaaaaa acacacaaa cgctcgcagc cacaaaagg 100

atgaaatttc ttctggacat cctcctgctt ctcccgttac tgatcgtctg 150

ctccctagag tccttcgtga agctttttat tcctaagagg agaaaatcag 200
tcaccggcga aatcgtgctg attacaggag ctgggcacatg aattgggaga 250

ctgactgcct atgaatttgc taaacttaaa agcaagctgg ttctctggga 300

tataaataag catggactgg aggaaacagc tgccaaatgc aagggactgg 350

gtgccaaagg tcataccttt gtggtagact gcagcaaccg agaagatatt 400

tacagctctg caaagaagg gaaggcagaa attggagatg ttagtatttt 450

agtaaataat gctgggtgtag tctatacatc agatttggtt gctacacaag 500

atcctcagat tgaaaagact tttgaagtta atgtacttgc acatttctgg 550

```

actacaaagg catttcttcc tgcaatgacg aagaataacc atggccatat 600
tgtcactgtg gcttcggcag ctggacatgt ctcggtcccc ttcttactgg 650
cttactgttc aagcaagttt gctgctgttg gatttcataa aactttgaca 700
gatgaactgg ctgccttaca aataactgga gtcaaaacaa catgtctgtg 750
tctaatttc gtaaactctg gcttcatcaa aaatccaagt acaagtttgg 800
gacccactct ggaacctgag gaagtggtaa acaggctgat gcatgggatt 850
ctgactgagc agaagatgat ttttattcca tcttctatag cttttttaac 900
aacattggaa aggatccttc ctgagcgttt cctggcagtt ttaaaacgaa 950
aaatcagtgt taagtttgat gcagttattg gatataaaat gaaagcgcaa 1000
taagcaccta gttttctgaa aactgattta ccaggtttag gttgatgtca 1050
tctaatagtg ccagaatttt aatgtttgaa cttctgtttt ttctaattat 1100
ccccatttct tcaatatcat ttttgaggct ttggcagttc tcatttacta 1150
ccacttgttc tttagccaaa agctgattac atatgatata aacagagaaa 1200
tacctttaga ggtgacttta aggaaaatga agaaaaagaa ccaaaatgac 1250
tttattaaaa taatttccaa gattatttgt ggctcacctg aaggctttgc 1300
aaaatttgta ccataaccgt ttatttaaca tatattttta tttttgattg 1350
cacttaaatt ttgtataatt tgtgtttctt tttctgttct acataaaatc 1400
agaaacttca agctctctaa ataaaatgaa ggactatatc tagtggtatt 1450
tcacaatgaa tatcatgaac tctcaatggg taggtttcat cctaccatt 1500
gccactctgt ttcttgagag atacctcaca ttccaatgcc aaacatttct 1550
gcacagggaa gctagagggtg gatacacgtg ttgcaagtat aaaagcatca 1600
ctgggattta aggagaattg agagaatgta cccacaaatg gcagcaataa 1650
taaatggatc acacttaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 1700
aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 1750

aaaaaaaaaa aaaaaaaaaa a 1771
<210> 159
<211> 300
<212> PRT
<213> Homo Sapien

<400> 159
Met Lys Phe Leu Leu Asp Ile Leu Leu Leu Leu Pro Leu Leu Ile
  1               5               10               15

```

Val	Cys	Ser	Leu	Glu	Ser	Phe	Val	Lys	Leu	Phe	Ile	Pro	Lys	Arg		20	25	30
Arg	Lys	Ser	Val	Thr	Gly	Glu	Ile	Val	Leu	Ile	Thr	Gly	Ala	Gly		35	40	45
His	Gly	Ile	Gly	Arg	Leu	Thr	Ala	Tyr	Glu	Phe	Ala	Lys	Leu	Lys		50	55	60
Ser	Lys	Leu	Val	Leu	Trp	Asp	Ile	Asn	Lys	His	Gly	Leu	Glu	Glu		65	70	75
Thr	Ala	Ala	Lys	Cys	Lys	Gly	Leu	Gly	Ala	Lys	Val	His	Thr	Phe		80	85	90
Val	Val	Asp	Cys	Ser	Asn	Arg	Glu	Asp	Ile	Tyr	Ser	Ser	Ala	Lys		95	100	105
Lys	Val	Lys	Ala	Glu	Ile	Gly	Asp	Val	Ser	Ile	Leu	Val	Asn	Asn		110	115	120
Ala	Gly	Val	Val	Tyr	Thr	Ser	Asp	Leu	Phe	Ala	Thr	Gln	Asp	Pro		125	130	135
Gln	Ile	Glu	Lys	Thr	Phe	Glu	Val	Asn	Val	Leu	Ala	His	Phe	Trp		140	145	150
Thr	Thr	Lys	Ala	Phe	Leu	Pro	Ala	Met	Thr	Lys	Asn	Asn	His	Gly		155	160	165
His	Ile	Val	Thr	Val	Ala	Ser	Ala	Ala	Gly	His	Val	Ser	Val	Pro		170	175	180
Phe	Leu	Leu	Ala	Tyr	Cys	Ser	Ser	Lys	Phe	Ala	Ala	Val	Gly	Phe		185	190	195
His	Lys	Thr	Leu	Thr	Asp	Glu	Leu	Ala	Ala	Leu	Gln	Ile	Thr	Gly		200	205	210
Val	Lys	Thr	Thr	Cys	Leu	Cys	Pro	Asn	Phe	Val	Asn	Thr	Gly	Phe		215	220	225
Ile	Lys	Asn	Pro	Ser	Thr	Ser	Leu	Gly	Pro	Thr	Leu	Glu	Pro	Glu		230	235	240
Glu	Val	Val	Asn	Arg	Leu	Met	His	Gly	Ile	Leu	Thr	Glu	Gln	Lys		245	250	255
Met	Ile	Phe	Ile	Pro	Ser	Ser	Ile	Ala	Phe	Leu	Thr	Thr	Leu	Glu		260	265	270
Arg	Ile	Leu	Pro	Glu	Arg	Phe	Leu	Ala	Val	Leu	Lys	Arg	Lys	Ile		275	280	285
Ser	Val	Lys	Phe	Asp	Ala	Val	Ile	Gly	Tyr	Lys	Met	Lys	Ala	Gln		290	295	300

<210> 160

<211> 23

<212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic Oligonucleotide Probe

 <400> 160
 ggtgaaggca gaaattggag atg 23

 <210> 161
 <211> 24
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic Oligonucleotide Probe

 <400> 161
 atcccatgca tcagcctggt tacc 24

 <210> 162
 <211> 48
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic Oligonucleotide Probe

 <400> 162
 gctggtgtag tctatacatc agatttggtt gctacacaag atcctcag 48

 <210> 163
 <211> 2076
 <212> DNA
 <213> Homo Sapien

 <400> 163
 cccacgcgtc cgcggaacgc tgggtcgact agttctagat cgcgagcggc 50
 cgccccgcggc tcagggagga gcaccgactg cgccgcaccc tgagagatgg 100
 ttggtgccat gtggaagggtg attgtttcgc tggtcctggt gatgcctggc 150
 ccctgtgatg ggctgtttcg ctccctatac agaagtgttt ccatgccacc 200
 taaggagagac tcaggacagc cattatttct cacccttac attgaagctg 250
 ggaagatcca aaaaggaaga gaattgagtt tggtcggccc tttcccagga 300
 ctgaacatga agagttatgc cggcttcctc accgtgaata agacttacia 350
 cagcaacctc ttcttctggt tcttcccagc tcagatacag ccagaagatg 400
 cccagtagt tctctggcta cagggtgggc cgggaggttc atccatgttt 450
 ggactctttg tggaacatgg gccttatggt gtcacaagta acatgacctt 500
 gcgtgacaga gacttcccct ggaccacaac gctctccatg ctttacattg 550
 acaatccagt gggcacaggc ttcagtttta ctgatgatac ccacggatat 600

gcagtcaatg aggacgatgt agcacgggat ttatacagtg cactaattca 650
gtttttccag atatttcctg aatataaaaa taatgacttt tatgtcactg 700
gggagtctta tgcagggaaa tatgtgccag ccattgcaca cctcatccat 750
tccttcaacc ctgtgagaga ggtgaagatc aacctgaacg gaattgctat 800
tggagatgga tattctgac cgaatcaat tatagggggc tatgcagaat 850
tcctgtacca aattggcttg ttggatgaga agcaaaaaaa gtacttccag 900
aagcagtgcc atgaatgcat agaacacatc aggaagcaga actggtttga 950
ggcctttgaa atactggata aactactaga tggcgactta acaagtgatc 1000
cttcttactt ccagaatgtt acaggatgta gtaattacta taactttttg 1050
cgggtgcacgg aacctgagga tcagctttac tatgtgaaat tttgtcact 1100
cccagagggtg agacaagcca tccacgtggg gaatcagact tttaatgatg 1150
gaactatagt tgaaaagtac ttgcgagaag atacagtaca gtcagttaag 1200
ccatggttaa ctgaaatcat gaataattat aaggttctga tctacaatgg 1250
ccaactggac atcatcgtgg cagctgcctt gacagagcgc tccttgatgg 1300
gcatggactg gaaaggatcc caggaataca agaaggcaga aaaaaaagtt 1350
tggaagatct ttaaactctga cagtgaagtg gctgggttaca tccggcaagc 1400
gggtgacttc catcaggtaa ttattcgagg tggaggacat attttaccct 1450
atgaccagcc tctgagagct tttgacatga ttaatcgatt catttatgga 1500
aaaggatggg atccttatgt tggataaact accttcccaa aagagaacat 1550
cagagggtttt cattgctgaa aagaaaatcg taaaaacaga aaatgtcata 1600
ggaataaaaa aattatcttt tcatatctgc aagatttttt tcatcaataa 1650
aaattatcct tgaaacaagt gagcttttgt ttttgggggg agatgtttac 1700
tacaaaatta acatgagtac atgagtaaga attacattat ttaacttaaa 1750
ggatgaaagg tatggatgat gtgacactga gacaagatgt ataaatgaaa 1800
ttttaggggtc ttgaatagga agttttaatt tcttctaaga gtaagtgaaa 1850
agtgcagttg taacaaacaa agctgtaaca tctttttctg ccaataacag 1900
aagtttggca tgccgtgaag gtgtttggaa atattattgg ataagaatag 1950
ctcaattatc ccaaataaat ggatgaagct ataatagttt tggggaaaag 2000
attctcaaat gtataaagtc ttagaacaaa agaattcttt gaaataaaaa 2050

tattatatat aaaagtaaaa aaaaaa 2076

<210> 164

<211> 476

<212> PRT

<213> Homo Sapien

<400> 164

Met	Val	Gly	Ala	Met	Trp	Lys	Val	Ile	Val	Ser	Leu	Val	Leu	Leu
1				5					10					15

Met	Pro	Gly	Pro	Cys	Asp	Gly	Leu	Phe	Arg	Ser	Leu	Tyr	Arg	Ser
				20					25					30

Val	Ser	Met	Pro	Pro	Lys	Gly	Asp	Ser	Gly	Gln	Pro	Leu	Phe	Leu
				35					40					45

Thr	Pro	Tyr	Ile	Glu	Ala	Gly	Lys	Ile	Gln	Lys	Gly	Arg	Glu	Leu
				50					55					60

Ser	Leu	Val	Gly	Pro	Phe	Pro	Gly	Leu	Asn	Met	Lys	Ser	Tyr	Ala
				65					70					75

Gly	Phe	Leu	Thr	Val	Asn	Lys	Thr	Tyr	Asn	Ser	Asn	Leu	Phe	Phe
				80					85					90

Trp	Phe	Phe	Pro	Ala	Gln	Ile	Gln	Pro	Glu	Asp	Ala	Pro	Val	Val
				95					100					105

Leu	Trp	Leu	Gln	Gly	Gly	Pro	Gly	Gly	Ser	Ser	Met	Phe	Gly	Leu
				110					115					120

Phe	Val	Glu	His	Gly	Pro	Tyr	Val	Val	Thr	Ser	Asn	Met	Thr	Leu
				125					130					135

Arg	Asp	Arg	Asp	Phe	Pro	Trp	Thr	Thr	Thr	Leu	Ser	Met	Leu	Tyr
				140					145					150

Ile	Asp	Asn	Pro	Val	Gly	Thr	Gly	Phe	Ser	Phe	Thr	Asp	Asp	Thr
				155					160					165

His	Gly	Tyr	Ala	Val	Asn	Glu	Asp	Asp	Val	Ala	Arg	Asp	Leu	Tyr
				170					175					180

Ser	Ala	Leu	Ile	Gln	Phe	Phe	Gln	Ile	Phe	Pro	Glu	Tyr	Lys	Asn
				185					190					195

Asn	Asp	Phe	Tyr	Val	Thr	Gly	Glu	Ser	Tyr	Ala	Gly	Lys	Tyr	Val
				200					205					210

Pro	Ala	Ile	Ala	His	Leu	Ile	His	Ser	Leu	Asn	Pro	Val	Arg	Glu
				215					220					225

Val	Lys	Ile	Asn	Leu	Asn	Gly	Ile	Ala	Ile	Gly	Asp	Gly	Tyr	Ser
				230					235					240

Asp	Pro	Glu	Ser	Ile	Ile	Gly	Gly	Tyr	Ala	Glu	Phe	Leu	Tyr	Gln
				245					250					255

Ile Gly Leu Leu Asp Glu Lys Gln Lys Lys Tyr Phe Gln Lys Gln	260	265	270
Cys His Glu Cys Ile Glu His Ile Arg Lys Gln Asn Trp Phe Glu	275	280	285
Ala Phe Glu Ile Leu Asp Lys Leu Leu Asp Gly Asp Leu Thr Ser	290	295	300
Asp Pro Ser Tyr Phe Gln Asn Val Thr Gly Cys Ser Asn Tyr Tyr	305	310	315
Asn Phe Leu Arg Cys Thr Glu Pro Glu Asp Gln Leu Tyr Tyr Val	320	325	330
Lys Phe Leu Ser Leu Pro Glu Val Arg Gln Ala Ile His Val Gly	335	340	345
Asn Gln Thr Phe Asn Asp Gly Thr Ile Val Glu Lys Tyr Leu Arg	350	355	360
Glu Asp Thr Val Gln Ser Val Lys Pro Trp Leu Thr Glu Ile Met	365	370	375
Asn Asn Tyr Lys Val Leu Ile Tyr Asn Gly Gln Leu Asp Ile Ile	380	385	390
Val Ala Ala Ala Leu Thr Glu Arg Ser Leu Met Gly Met Asp Trp	395	400	405
Lys Gly Ser Gln Glu Tyr Lys Lys Ala Glu Lys Lys Val Trp Lys	410	415	420
Ile Phe Lys Ser Asp Ser Glu Val Ala Gly Tyr Ile Arg Gln Ala	425	430	435
Gly Asp Phe His Gln Val Ile Ile Arg Gly Gly Gly His Ile Leu	440	445	450
Pro Tyr Asp Gln Pro Leu Arg Ala Phe Asp Met Ile Asn Arg Phe	455	460	465
Ile Tyr Gly Lys Gly Trp Asp Pro Tyr Val Gly	470	475	

<210> 165

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Oligonucleotide Probe

<400> 165

ttccatgccca cctaaggag actc 24

<210> 166

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Oligonucleotide Probe

<400> 166

tggatgaggt gtgcaatggc tggc 24

<210> 167

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Oligonucleotide Probe

<400> 167

agctctcaga ggctgggtcat aggg 24

<210> 168

<211> 50

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Oligonucleotide Probe

<400> 168

gtcggccctt tcccaggact gaacatgaag agttatgccg gcttcctcac 50

<210> 169

<211> 2477

<212> DNA

<213> Homo Sapien

<400> 169

cgagggtttt tccgggtccg gaatggcaca tgtgggaatc ccagtcttgt 50

tggctacaac atttttccct ttcctaacaa gttctaacag ctgttctaac 100

agctagtgat caggggttct tcttgctgga gaagaaaggg ctgagggcag 150

agcagggcac tctcactcag ggtgaccagc tccttgccctc tctgtggata 200

acagagcatg agaaagtga gagatgcagc ggagtgaggt gatggaagtc 250

taaaatagga aggaattttg tgtgcaatat cagactctgg gagcagttga 300

cctggagagc ctgggggagg gcctgcctaa caagctttca aaaaacagga 350

gcgacttcca ctgggctggg ataagacgtg ccggtaggat agggaagact 400

gggttttagtc ctaatatcaa attgactggc tgggtgaact tcaacagcct 450

tttaacctct ctgggagatg aaaacgatgg cttaaggggc cagaaataga 500

gatgctttgt aaaataaaat tttaaaaaaa gcaagtattt tatagcataa 550

aggctagaga ccaaaataga taacaggatt ccctgaacat tcctaagagg 600

gagaaagtat gttaaaaata gaaaaaccaa aatgcagaag gaggagactc 650
acagagctaa accaggatgg ggaccctggg tcaggccagc ctctttgctc 700
ctccccgaaa ttatTTTTTgg tctgaccact ctgccttggtg ttttgcagaa 750
tcatgtgagg gccaaaccggg gaaggtggag cagatgagca cacacaggag 800
ccgtctcctc accgccgccc ctctcagcat ggaacagagg cagccctggc 850
cccgggccct ggaggtggac agccgctctg tggtcctgct ctcagtggctc 900
tgggtgctgc tggccccccc agcagccggc atgcctcagt tcagcacctt 950
ccactctgag aatcgtgact ggaccttcaa ccacttgacc gtccaccaag 1000
ggacggggggc cgtctatgtg ggggccatca accgggtcta taagctgaca 1050
ggcaacctga ccatccaggt ggctcataag acagggccag aagaggacaa 1100
caagtctcgt taccgcccc tcacgtgca gccctgcagc gaagtgtca 1150
ccctcaccaa caatgtcaac aagctgtca tcattgacta ctctgagaac 1200
cgctgctgg cctgtgggag cctctaccag ggggtctgca agctgtgctg 1250
gctggatgac ctcttcatcc tgggtggagcc atcccacaag aaggagcact 1300
acctgtccag tgtcaacaag acgggcacca tgtacgggggt gattgtgcgc 1350
tctgaggggtg aggatggcaa gctcttcac gccacggctg tggatgggaa 1400
gcaggattac tccccgacc tgtccagccg gaagctgccc cgagaccctg 1450
agtccctcagc catgctcgac tatgagctac acagcgattt tgtctcctct 1500
ctcatcaaga tcccttcaga caccctggcc ctgggtctccc actttgacat 1550
cttctacatc tacggctttg ctagtggggg ctttgtctac tttctcactg 1600
tccagcccga gaccctgag ggtgtggcca tcaactccgc tggagacctc 1650
ttctacacct cacgcatcgt gcggctctgc aaggatgacc ccaagttcca 1700
ctcatacgtg tccctgccct tcggctgcac ccgggcccggg gtggaatacc 1750
gcctcctgca ggctgcttac ctggccaagc ctggggactc actggcccag 1800
gccttcaata tcaccagcca ggacgatgta ctctttgcca tcttctccaa 1850
agggcagaag cagtatcacc accgcccga tgactctgcc ctgtgtgcct 1900
tccctatccg ggccatcaac ttgcagatca aggagcgctt gcagtcctgc 1950
taccagggcg agggcaacct ggagctcaac tggctgctgg ggaaggacgt 2000
ccagtgcacg aaggcgctg tccccatcga tgataacttc tgtggactgg 2050

acatcaacca gccctggga ggctcaactc cagtggaggg cctgaccctg 2100
 tacaccacca gcagggaccg catgacctct gtggcctcct acgtttacaa 2150
 cggctacagc gtggtttttg tggggactaa gagtggcaag ctgaaaaagg 2200
 taagagtcta tgagttcaga tgctccaatg ccattcacct cctcagcaaa 2250
 gagtccctct tggaaggtag ctattggtgg agatttaact ataggcaact 2300
 ttattttctt ggggaacaaa ggtgaaatgg ggaggtaaga aggggttaat 2350
 tttgtgactt agcttctagc tacttctctc agccatcagt cattgggtat 2400
 gtaaggaatg caagcgtatt tcaatatattt ccaaacttta agaaaaaact 2450
 ttaagaaggt acatctgcaa aagcaaa 2477

<210> 170

<211> 552

<212> PRT

<213> Homo Sapien

<400> 170

Met	Gly	Thr	Leu	Gly	Gln	Ala	Ser	Leu	Phe	Ala	Pro	Pro	Gly	Asn	1	5	10	15
Tyr	Phe	Trp	Ser	Asp	His	Ser	Ala	Leu	Cys	Phe	Ala	Glu	Ser	Cys	20	25	30	
Glu	Gly	Gln	Pro	Gly	Lys	Val	Glu	Gln	Met	Ser	Thr	His	Arg	Ser	35	40	45	
Arg	Leu	Leu	Thr	Ala	Ala	Pro	Leu	Ser	Met	Glu	Gln	Arg	Gln	Pro	50	55	60	
Trp	Pro	Arg	Ala	Leu	Glu	Val	Asp	Ser	Arg	Ser	Val	Val	Leu	Leu	65	70	75	
Ser	Val	Val	Trp	Val	Leu	Leu	Ala	Pro	Pro	Ala	Ala	Gly	Met	Pro	80	85	90	
Gln	Phe	Ser	Thr	Phe	His	Ser	Glu	Asn	Arg	Asp	Trp	Thr	Phe	Asn	95	100	105	
His	Leu	Thr	Val	His	Gln	Gly	Thr	Gly	Ala	Val	Tyr	Val	Gly	Ala	110	115	120	
Ile	Asn	Arg	Val	Tyr	Lys	Leu	Thr	Gly	Asn	Leu	Thr	Ile	Gln	Val	125	130	135	
Ala	His	Lys	Thr	Gly	Pro	Glu	Glu	Asp	Asn	Lys	Ser	Arg	Tyr	Pro	140	145	150	
Pro	Leu	Ile	Val	Gln	Pro	Cys	Ser	Glu	Val	Leu	Thr	Leu	Thr	Asn	155	160	165	
Asn	Val	Asn	Lys	Leu	Leu	Ile	Ile	Asp	Tyr	Ser	Glu	Asn	Arg	Leu	170	175	180	

Leu	Ala	Cys	Gly	Ser	Leu	Tyr	Gln	Gly	Val	Cys	Lys	Leu	Leu	Arg	185	190	195
Leu	Asp	Asp	Leu	Phe	Ile	Leu	Val	Glu	Pro	Ser	His	Lys	Lys	Glu	200	205	210
His	Tyr	Leu	Ser	Ser	Val	Asn	Lys	Thr	Gly	Thr	Met	Tyr	Gly	Val	215	220	225
Ile	Val	Arg	Ser	Glu	Gly	Glu	Asp	Gly	Lys	Leu	Phe	Ile	Gly	Thr	230	235	240
Ala	Val	Asp	Gly	Lys	Gln	Asp	Tyr	Phe	Pro	Thr	Leu	Ser	Ser	Arg	245	250	255
Lys	Leu	Pro	Arg	Asp	Pro	Glu	Ser	Ser	Ala	Met	Leu	Asp	Tyr	Glu	260	265	270
Leu	His	Ser	Asp	Phe	Val	Ser	Ser	Leu	Ile	Lys	Ile	Pro	Ser	Asp	275	280	285
Thr	Leu	Ala	Leu	Val	Ser	His	Phe	Asp	Ile	Phe	Tyr	Ile	Tyr	Gly	290	295	300
Phe	Ala	Ser	Gly	Gly	Phe	Val	Tyr	Phe	Leu	Thr	Val	Gln	Pro	Glu	305	310	315
Thr	Pro	Glu	Gly	Val	Ala	Ile	Asn	Ser	Ala	Gly	Asp	Leu	Phe	Tyr	320	325	330
Thr	Ser	Arg	Ile	Val	Arg	Leu	Cys	Lys	Asp	Asp	Pro	Lys	Phe	His	335	340	345
Ser	Tyr	Val	Ser	Leu	Pro	Phe	Gly	Cys	Thr	Arg	Ala	Gly	Val	Glu	350	355	360
Tyr	Arg	Leu	Leu	Gln	Ala	Ala	Tyr	Leu	Ala	Lys	Pro	Gly	Asp	Ser	365	370	375
Leu	Ala	Gln	Ala	Phe	Asn	Ile	Thr	Ser	Gln	Asp	Asp	Val	Leu	Phe	380	385	390
Ala	Ile	Phe	Ser	Lys	Gly	Gln	Lys	Gln	Tyr	His	His	Pro	Pro	Asp	395	400	405
Asp	Ser	Ala	Leu	Cys	Ala	Phe	Pro	Ile	Arg	Ala	Ile	Asn	Leu	Gln	410	415	420
Ile	Lys	Glu	Arg	Leu	Gln	Ser	Cys	Tyr	Gln	Gly	Glu	Gly	Asn	Leu	425	430	435
Glu	Leu	Asn	Trp	Leu	Leu	Gly	Lys	Asp	Val	Gln	Cys	Thr	Lys	Ala	440	445	450
Pro	Val	Pro	Ile	Asp	Asp	Asn	Phe	Cys	Gly	Leu	Asp	Ile	Asn	Gln	455	460	465
Pro	Leu	Gly	Gly	Ser	Thr	Pro	Val	Glu	Gly	Leu	Thr	Leu	Tyr	Thr			

	470		475		480
Thr Ser Arg Asp	Arg Met Thr Ser Val	Ala Ser Tyr Val Tyr Asn			
	485	490		495	
Gly Tyr Ser Val	Val Phe Val Gly Thr	Lys Ser Gly Lys Leu Lys			
	500	505		510	
Lys Val Arg Val	Tyr Glu Phe Arg Cys	Ser Asn Ala Ile His Leu			
	515	520		525	
Leu Ser Lys Glu	Ser Leu Leu Glu Gly	Ser Tyr Trp Trp Arg Phe			
	530	535		540	
Asn Tyr Arg Gln	Leu Tyr Phe Leu Gly	Glu Gln Arg			
	545	550			

<210> 171
 <211> 20
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic Oligonucleotide Probe

<400> 171
 tggaataaccg cctcctgcag 20
 <210> 172
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic Oligonucleotide Probe

<400> 172
 cttctgccct ttggagaaga tggc 24

<210> 173
 <211> 43
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 173
 ggactcactg gcccaggcct tcaatatcac cagccaggac gat 43

<210> 174
 <211> 3106
 <212> DNA
 <213> Homo Sapien

<220>
 <221> unsure
 <222> 1683
 <223> unknown base

<400> 174

aggctcccg gcgcggctga gtgcggactg gagtgggaac ccgggtcccc 50
gcgcttagag aacacgcgat gaccacgtgg agcctccggc ggaggccggc 100
ccgcacgctg ggactcctgc tgctggtcgt cttgggcttc ctggtgctcc 150
gcaggctgga ctggagcacc ctggtccctc tgcggctccg ccatcgacag 200
ctggggctgc aggccaaggg ctggaacttc atgctggagg attccacctt 250
ctggatcttc gggggctcca tccactatth ccgtgtgccc agggagtact 300
ggagggaccg cctgctgaag atgaaggcct gtggcttgaa caccctcacc 350
acctatgttc cgtggaacct gcatgagcca gaaagaggca aatttgactt 400
ctctgggaac ctggacctgg aggccttcgt cctgatggcc gcagagatcg 450
ggctgtgggt gattctgcgt ccaggcccct acatctgcag tgagatggac 500
ctcgggggct tgcccagctg gctactccaa gaccctggca tgaggctgag 550
gacaacttac aagggttca ccgaagcagt ggacctttat tttgaccacc 600
tgatgtccag ggtggtgcca ctccagtaca agcgtggggg acctatcatt 650
gccgtgcagg tggagaatga atatggttcc tataataaag accccgcata 700
catgccctac gtcaagaagg cactggagga ccgtggcatt gtggaactgc 750
tcctgacttc agacaacaag gatgggctga gcaaggggat tgtccaggga 800
gtcttgGCCa ccatcaactt gcagtcaaca cagagctgc agctactgac 850
cacctttctc ttcaacgtcc aggggactca gccaagatg gtgatggagt 900
actggacggg gtggtttgac tctgtgggag gccctcaca tatcttgat 950
tcttctgagg ttttgaaaac cgtgtctgcc attgtggacg ccggctctc 1000
catcaacctc tacatgttcc acggaggcac caactttggc ttcataatg 1050
gagccatgca cttccatgac tacaagtcag atgtcaccag ctatgactat 1100
gatgctgtgc tgacagaagc cggcgattac acggccaagt acatgaagct 1150
tcgagacttc ttcggctcca tctcaggcat ccctctccct ccccccactg 1200
accttcttcc caagatgccg tatgagccct taacgccagt cttgtacctg 1250
tctctgtggg acgccctcaa gtacctggg gagccaatca agtctgaaaa 1300
gcccataaac atggagaacc tgccagtcaa tgggggaaat ggacagtcct 1350
tcgggtacat tctctatgag accagcatca cctcgtctgg catcctcagt 1400
ggccacgtgc atgatcgggg gcaggtgttt gtgaacacag tatccatagg 1450

attcttggac tacaagacaa cgaagattgc tgtccccctg atccaggggtt 1500
 acaccgtgct gaggatcttg gtggagaatc gtgggagagt caactatggg 1550
 gagaatattg atgaccagcg caaaggctta attggaaatc tctatctgaa 1600
 tgattcacc ctgaaaaact tcagaatcta tagcctggat atgaagaaga 1650
 gcttctttca gaggttcggc ctggacaaat gnggttcctt cccagaaaca 1700
 cccacattac ctgctttctt cttgggtagc ttgtccatca gctccacgcc 1750
 ttgtgacacc tttctgaagc tggagggctg ggagaagggg gttgtattca 1800
 tcaatggcca gaaccttgga cgttactgga acattggacc ccagaagacg 1850
 ctttacctcc caggtccctg gttgagcagc ggaatcaacc aggtcatcgt 1900
 ttttgaggag acgatggcgg gccctgcatt acagttcacg gaaaccccc 1950
 acctgggcag gaaccagtac attaagttag cggtggcacc ccctcctgct 2000
 ggtgccagtg ggagactgcc gcctcctctt gacctgaagc ctggtggctg 2050
 ctgccccacc cctcactgca aaagcatctc ctttaagtagc aacctcaggg 2100
 actgggggct acagtctgcc cctgtctcag ctcaaaaccc taagcctgca 2150
 gggaaagggtg ggatggctct gggcctggct ttgttgatga tggctttcct 2200
 acagccctgc tcttgtgccg aggtgtcgg gctgtctcta ggggtgggagc 2250
 agctaatacag atcgcccagc ctttggccct cagaaaaagt gctgaaacgt 2300
 gcccttgac cgagcgtcac agccctgcga gcctctgctg gactcaggcg 2350
 tgctctttgc tggttcctgg gaggttggc cacatccctc atggccccat 2400
 tttatccccg aaatcctggg tgtgtcacca gtgtagaggg tggggaaggg 2450
 gtgtctcacc tgagctgact ttgttcttcc ttcacaacct tctgagcctt 2500
 ctttgggatt ctggaaggaa ctcggcgtga gaaacatgtg acttcccctt 2550
 tcccttccca ctgctgctt cccacagggt gacaggctgg gctggagaaa 2600
 cagaaatcct caccctgcgt cttcccaagt tagcaggtgt ctctgggtgtt 2650
 cagtgaggag gacatgtgag tcctggcaga agccatggcc catgtctgca 2700
 catccagggg ggaggacaga aggccagct cacatgtgag tcctggcaga 2750
 agccatggcc catgtctgca catccagggg ggaggacaga aggccagct 2800
 cacatgtgag tcctggcaga agccatggcc catgtctgca catccagggg 2850
 ggaggacaga aggccagct cacatgtgag tcctggcaga agccatggcc 2900
 catgtctgca catccagggg ggaggacaga aggccagct cagtggcccc 2950

cgctcccccac cccccacgcc cgaacagcag gggcagagca gccctccttc 3000
gaagtgtgtc caagtccgca tttgagcctt gttctggggc ccagcccaac 3050
acctggcttg ggctcactgt.cctgagttgc agtaaagcta taaccttgaa 3100
tcacaa 3106

<210> 175
<211> 636
<212> PRT
<213> Homo Sapien

<220>
<221> unsure
<222> 539
<223> unknown amino acid

<400> 175
Met Thr Thr Trp Ser Leu Arg Arg Arg Pro Ala Arg Thr Leu Gly
1 5 10 15
Leu Leu Leu Leu Val Val Leu Gly Phe Leu Val Leu Arg Arg Leu
20 25 30
Asp Trp Ser Thr Leu Val Pro Leu Arg Leu Arg His Arg Gln Leu
35 40 45
Gly Leu Gln Ala Lys Gly Trp Asn Phe Met Leu Glu Asp Ser Thr
50 55 60
Phe Trp Ile Phe Gly Gly Ser Ile His Tyr Phe Arg Val Pro Arg
65 70 75
Glu Tyr Trp Arg Asp Arg Leu Leu Lys Met Lys Ala Cys Gly Leu
80 85 90
Asn Thr Leu Thr Thr Tyr Val Pro Trp Asn Leu His Glu Pro Glu
95 100 105
Arg Gly Lys Phe Asp Phe Ser Gly Asn Leu Asp Leu Glu Ala Phe
110 115 120
Val Leu Met Ala Ala Glu Ile Gly Leu Trp Val Ile Leu Arg Pro
125 130 135
Gly Pro Tyr Ile Cys Ser Glu Met Asp Leu Gly Gly Leu Pro Ser
140 145 150
Trp Leu Leu Gln Asp Pro Gly Met Arg Leu Arg Thr Thr Tyr Lys
155 160 165
Gly Phe Thr Glu Ala Val Asp Leu Tyr Phe Asp His Leu Met Ser
170 175 180
Arg Val Val Pro Leu Gln Tyr Lys Arg Gly Gly Pro Ile Ile Ala
185 190 195
Val Gln Val Glu Asn Glu Tyr Gly Ser Tyr Asn Lys Asp Pro Ala
200 205 210

Tyr Met Pro Tyr	Val Lys Lys Ala Leu Glu Asp Arg Gly Ile Val	215	220	225
Glu Leu Leu Leu	Thr Ser Asp Asn Lys Asp Gly Leu Ser Lys Gly	230	235	240
Ile Val Gln Gly	Val Leu Ala Thr Ile Asn Leu Gln Ser Thr His	245	250	255
Glu Leu Gln Leu	Leu Thr Thr Phe Leu Phe Asn Val Gln Gly Thr	260	265	270
Gln Pro Lys Met	Val Met Glu Tyr Trp Thr Gly Trp Phe Asp Ser	275	280	285
Trp Gly Gly Pro	His Asn Ile Leu Asp Ser Ser Glu Val Leu Lys	290	295	300
Thr Val Ser Ala	Ile Val Asp Ala Gly Ser Ser Ile Asn Leu Tyr	305	310	315
Met Phe His Gly	Gly Thr Asn Phe Gly Phe Met Asn Gly Ala Met	320	325	330
His Phe His Asp	Tyr Lys Ser Asp Val Thr Ser Tyr Asp Tyr Asp	335	340	345
Ala Val Leu Thr	Glu Ala Gly Asp Tyr Thr Ala Lys Tyr Met Lys	350	355	360
Leu Arg Asp Phe	Phe Gly Ser Ile Ser Gly Ile Pro Leu Pro Pro	365	370	375
Pro Pro Asp Leu	Leu Pro Lys Met Pro Tyr Glu Pro Leu Thr Pro	380	385	390
Val Leu Tyr Leu	Ser Leu Trp Asp Ala Leu Lys Tyr Leu Gly Glu	395	400	405
Pro Ile Lys Ser	Glu Lys Pro Ile Asn Met Glu Asn Leu Pro Val	410	415	420
Asn Gly Gly Asn	Gly Gln Ser Phe Gly Tyr Ile Leu Tyr Glu Thr	425	430	435
Ser Ile Thr Ser	Ser Gly Ile Leu Ser Gly His Val His Asp Arg	440	445	450
Gly Gln Val Phe	Val Asn Thr Val Ser Ile Gly Phe Leu Asp Tyr	455	460	465
Lys Thr Thr Lys	Ile Ala Val Pro Leu Ile Gln Gly Tyr Thr Val	470	475	480
Leu Arg Ile Leu	Val Glu Asn Arg Gly Arg Val Asn Tyr Gly Glu	485	490	495
Asn Ile Asp Asp	Gln Arg Lys Gly Leu Ile Gly Asn Leu Tyr Leu			

	500	505	510
Asn Asp Ser Pro	Leu Lys Asn Phe Arg	Ile Tyr Ser Leu Asp	Met
	515	520	525
Lys Lys Ser Phe	Phe Gln Arg Phe Gly	Leu Asp Lys Trp Xaa	Ser
	530	535	540
Leu Pro Glu Thr	Pro Thr Leu Pro Ala	Phe Phe Leu Gly Ser	Leu
	545	550	555
Ser Ile Ser Ser	Thr Pro Cys Asp Thr	Phe Leu Lys Leu Glu	Gly
	560	565	570
Trp Glu Lys Gly	Val Val Phe Ile Asn	Gly Gln Asn Leu Gly	Arg
	575	580	585
Tyr Trp Asn Ile	Gly Pro Gln Lys Thr	Leu Tyr Leu Pro Gly	Pro
	590	595	600
Trp Leu Ser Ser	Gly Ile Asn Gln Val	Ile Val Phe Glu Glu	Thr
	605	610	615
Met Ala Gly Pro	Ala Leu Gln Phe Thr	Glu Thr Pro His Leu	Gly
	620	625	630
Arg Asn Gln Tyr	Ile Lys		
	635		

<210> 176
 <211> 2505
 <212> DNA
 <213> Homo Sapien

<400> 176
 ggggacgcgg agctgagagg ctccgggcta gctaggtgta ggggtggacg 50
 ggtccaggga ccctggtgag gggtctctac ttggccttcg gtgggggtca 100
 agacgcaggc acctacgcca aaggggagca aagccgggct cgccccgagg 150
 cccccaggac ctccatctcc caatgttggg ggaatccgac acgtgacggt 200
 ctgtccgccg tctcagacta gaggagcgct gtaaacgcca tggctcccaa 250
 gaagctgtcc tgccttcggt ccctgctgct gccgctcagc ctgacgctac 300
 tgctgcccc a ggcagacact cggtcggttc tagtggatag gggatcatgac 350
 cggtttctcc tagacggggc cccgttcgcg tatgtgtctg gcagcctgca 400
 ctactttcgg gtaccgcggg tgctttgggc cgaccggcct ttgaagatgc 450
 gatggagcgg cctcaacgcc atacagtttt atgtgccctg gaactaccac 500
 gagccacagc ctgggggtcta taactttaat ggcagccggg acctcattgc 550
 ctttctgaat gaggcagctc tagcgaacct gttggtcata ctgagaccag 600

gaccttacat ctgtgcagag tgggagatgg ggggtctccc atcctggttg 650
 cttcgaaaac ctgaaattca tctaagaacc tcagatccag acttccttgc 700
 cgcagtggac tcctggttca aggtcttgct gcccagata tatccatggc 750
 tttatcacia tgggggcaac atcattagca ttcaggtgga gaatgaatat 800
 ggtagctaca gagcctgtga cttcagctac atgaggcact tggctgggct 850
 cttccgtgca ctgctaggag aaaagatctt gctcttcacc acagatgggc 900
 ctgaaggact caagtgtggc tccctccggg gactctatac cactgtagat 950
 tttggcccag ctgacaacat gacccaaatc tttaccctgc ttcggaagta 1000
 tgaaccccat gggccattgg taaactctga gtactacaca ggctggctgg 1050
 attactgggg ccagaatcac tccacacggg ctgtgtcagc tgtaaccaa 1100
 ggactagaga acatgctcaa gttgggagcc agtgtgaaca tgtacatgtt 1150
 ccatggagggt accaactttg gatattggaa tgggtgccgat aagaaggac 1200
 gcttccttcc gattactacc agctatgact atgatgcacc tataatctgaa 1250
 gcaggggacc ccacaccta gctttttgct cttcgagatg tcatcagcaa 1300
 gttccaggaa gttccttttg gacctttacc tccccgagc cccaagatga 1350
 tgcttggacc tgtgactctg cacctgggtg ggcatttact ggctttccta 1400
 gacttgcttt gccccgtgg gccattcat tcaatcttgc caatgacctt 1450
 tgaggctgtc aagcaggacc atggcttcat gttgtaccga acctatatga 1500
 ccataccat ttttgagcca acaccattct gggtgccaaa taatggagtc 1550
 catgaccgtg cctatgtgat ggtggatggg gtgttccagg gtgttgtgga 1600
 gcgaaatatg agagacaaac tatttttgac ggggaaactg ggggtccaaac 1650
 tggatatctt ggtggagaac atggggaggg tcagcttttg gtctaacagc 1700
 agtgacttca agggcctgtt gaagccacca attctggggc aaacaatcct 1750
 taccagtggt atgatgttcc ctctgaaaat tgataacott gtgaagtgg 1800
 gggttccctt ccagttgcca aaatggccat atcctcaagc tccttctggc 1850
 cccacattct actccaaaac atttccaatt ttaggctcag ttggggacac 1900
 atttctatat ctacctggat ggaccaaggg ccaagtctgg atcaatgggt 1950
 ttaacttggg ccggtactgg acaaagcagg ggccacaaca gaccctctac 2000
 gtgccaaagt tcctgtgtt tcctagggga gccctcaaca aaattacatt 2050
 gctggaacta gaagatgtac ctctccagcc ccaagtccaa tttttggata 2100

agcctatcct caatagcact agtactttgc acaggacaca tatcaattcc 2150
 ctttcagctg atacactgag tgcctctgaa ccaatggagt taagtgggca 2200
 ctgaaaggta ggccgggcat ggtgggtcat gcctgtaatc ccagcacttt 2250
 gggagggtga gacgggtgga ttacctgagg tcaggacttc aagaccagcc 2300
 tggccaacat ggtgaaaccc cgtctccact aaaaatacaa aaattagccg 2350
 ggcgtgatgg tgggcacctc taatcccagc tacttggggag gctgagggca 2400
 ggagaattgc ttgaatccag gaggcagagg ttgcagtga gaggagttgt 2450
 accactgcac tccagcctgg ctgacagtga gacactccat ctcaaaaaaa 2500
 aaaaa 2505

<210> 177

<211> 654

<212> PRT

<213> Homo Sapien

<400> 177

Met	Ala	Pro	Lys	Lys	Leu	Ser	Cys	Leu	Arg	Ser	Leu	Leu	Leu	Pro
1				5					10					15
Leu	Ser	Leu	Thr	Leu	Leu	Leu	Pro	Gln	Ala	Asp	Thr	Arg	Ser	Phe
				20					25					30
Val	Val	Asp	Arg	Gly	His	Asp	Arg	Phe	Leu	Leu	Asp	Gly	Ala	Pro
				35					40					45
Phe	Arg	Tyr	Val	Ser	Gly	Ser	Leu	His	Tyr	Phe	Arg	Val	Pro	Arg
				50					55					60
Val	Leu	Trp	Ala	Asp	Arg	Leu	Leu	Lys	Met	Arg	Trp	Ser	Gly	Leu
				65					70					75
Asn	Ala	Ile	Gln	Phe	Tyr	Val	Pro	Trp	Asn	Tyr	His	Glu	Pro	Gln
				80					85					90
Pro	Gly	Val	Tyr	Asn	Phe	Asn	Gly	Ser	Arg	Asp	Leu	Ile	Ala	Phe
				95					100					105
Leu	Asn	Glu	Ala	Ala	Leu	Ala	Asn	Leu	Leu	Val	Ile	Leu	Arg	Pro
				110					115					120
Gly	Pro	Tyr	Ile	Cys	Ala	Glu	Trp	Glu	Met	Gly	Gly	Leu	Pro	Ser
				125					130					135
Trp	Leu	Leu	Arg	Lys	Pro	Glu	Ile	His	Leu	Arg	Thr	Ser	Asp	Pro
				140					145					150
Asp	Phe	Leu	Ala	Ala	Val	Asp	Ser	Trp	Phe	Lys	Val	Leu	Leu	Pro
				155					160					165
Lys	Ile	Tyr	Pro	Trp	Leu	Tyr	His	Asn	Gly	Gly	Asn	Ile	Ile	Ser
				170					175					180

Ile	Gln	Val	Glu	Asn	Glu	Tyr	Gly	Ser	Tyr	Arg	Ala	Cys	Asp	Phe	
				185					190					195	
Ser	Tyr	Met	Arg	His	Leu	Ala	Gly	Leu	Phe	Arg	Ala	Leu	Leu	Gly	
				200					205					210	
Glu	Lys	Ile	Leu	Leu	Phe	Thr	Thr	Asp	Gly	Pro	Glu	Gly	Leu	Lys	
				215					220					225	
Cys	Gly	Ser	Leu	Arg	Gly	Leu	Tyr	Thr	Thr	Val	Asp	Phe	Gly	Pro	
				230					235					240	
Ala	Asp	Asn	Met	Thr	Lys	Ile	Phe	Thr	Leu	Leu	Arg	Lys	Tyr	Glu	
				245					250					255	
Pro	His	Gly	Pro	Leu	Val	Asn	Ser	Glu	Tyr	Tyr	Thr	Gly	Trp	Leu	
				260					265					270	
Asp	Tyr	Trp	Gly	Gln	Asn	His	Ser	Thr	Arg	Ser	Val	Ser	Ala	Val	
				275					280					285	
Thr	Lys	Gly	Leu	Glu	Asn	Met	Leu	Lys	Leu	Gly	Ala	Ser	Val	Asn	
				290					295					300	
Met	Tyr	Met	Phe	His	Gly	Gly	Thr	Asn	Phe	Gly	Tyr	Trp	Asn	Gly	
				305					310					315	
Ala	Asp	Lys	Lys	Gly	Arg	Phe	Leu	Pro	Ile	Thr	Thr	Ser	Tyr	Asp	
				320					325					330	
Tyr	Asp	Ala	Pro	Ile	Ser	Glu	Ala	Gly	Asp	Pro	Thr	Pro	Lys	Leu	
				335					340					345	
Phe	Ala	Leu	Arg	Asp	Val	Ile	Ser	Lys	Phe	Gln	Glu	Val	Pro	Leu	
				350					355					360	
Gly	Pro	Leu	Pro	Pro	Pro	Ser	Pro	Lys	Met	Met	Leu	Gly	Pro	Val	
				365					370					375	
Thr	Leu	His	Leu	Val	Gly	His	Leu	Leu	Ala	Phe	Leu	Asp	Leu	Leu	
				380					385					390	
Cys	Pro	Arg	Gly	Pro	Ile	His	Ser	Ile	Leu	Pro	Met	Thr	Phe	Glu	
				395					400					405	
Ala	Val	Lys	Gln	Asp	His	Gly	Phe	Met	Leu	Tyr	Arg	Thr	Tyr	Met	
				410					415					420	
Thr	His	Thr	Ile	Phe	Glu	Pro	Thr	Pro	Phe	Trp	Val	Pro	Asn	Asn	
				425					430					435	
Gly	Val	His	Asp	Arg	Ala	Tyr	Val	Met	Val	Asp	Gly	Val	Phe	Gln	
				440					445					450	
Gly	Val	Val	Glu	Arg	Asn	Met	Arg	Asp	Lys	Leu	Phe	Leu	Thr	Gly	
				455					460					465	
Lys	Leu	Gly	Ser	Lys	Leu	Asp	Ile	Leu	Val	Glu	Asn	Met	Gly	Arg	

470	475	480
Leu Ser Phe Gly Ser Asn Ser Ser Asp	Phe Lys Gly Leu Leu Lys	
485	490	495
Pro Pro Ile Leu Gly Gln Thr Ile Leu	Thr Gln Trp Met Met Phe	
500	505	510
Pro Leu Lys Ile Asp Asn Leu Val Lys	Trp Trp Phe Pro Leu Gln	
515	520	525
Leu Pro Lys Trp Pro Tyr Pro Gln Ala	Pro Ser Gly Pro Thr Phe	
530	535	540
Tyr Ser Lys Thr Phe Pro Ile Leu Gly	Ser Val Gly Asp Thr Phe	
545	550	555
Leu Tyr Leu Pro Gly Trp Thr Lys Gly	Gln Val Trp Ile Asn Gly	
560	565	570
Phe Asn Leu Gly Arg Tyr Trp Thr Lys	Gln Gly Pro Gln Gln Thr	
575	580	585
Leu Tyr Val Pro Arg Phe Leu Leu Phe	Pro Arg Gly Ala Leu Asn	
590	595	600
Lys Ile Thr Leu Leu Glu Leu Glu Asp	Val Pro Leu Gln Pro Gln	
605	610	615
Val Gln Phe Leu Asp Lys Pro Ile Leu	Asn Ser Thr Ser Thr Leu	
620	625	630
His Arg Thr His Ile Asn Ser Leu Ser	Ala Asp Thr Leu Ser Ala	
635	640	645
Ser Glu Pro Met Glu Leu Ser Gly His		
650		

<210> 178

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Oligonucleotide Probe

<400> 178

tggtactcc aagaccctgg catg 24

<210> 179

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Oligonucleotide Probe

<400> 179

tggaacaatc cccttgctca gcc 24

<210> 180
 <211> 50
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic Oligonucleotide Probe

 <400> 180
 gggcttcacc gaagcagtgg acctttatTT tgaccacctg atgtccaggg 50

 <210> 181
 <211> 22
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic Oligonucleotide Probe

 <400> 181
 ccagctatga ctatgatgca cc 22

 <210> 182
 <211> 24
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic Oligonucleotide Probe

 <400> 182
 tggcaccag aatggtgttg gctc 24

 <210> 183
 <211> 50
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic Oligonucleotide Probe

 <400> 183
 cgagatgtca tcagcaagtt ccaggaagtt cctttgggac ctttacctcc 50

 <210> 184
 <211> 1947
 <212> DNA
 <213> Homo Sapien

 <400> 184
 gctttgaaca cgtctgcaag cccaaagttg agcatctgat tggttatgag 50

 gtatttgagt gcaccacaaa tatggcttac atgttgaaaa agcttctcat 100

 cagttacata tccattatTT gtgtttatgg ctttatctgc ctctacactc 150

 tcttctgggtt attcaggata cctttgaagg aatattcttt cgaaaaagtc 200

agagaagaga gcagtttttag tgacattcca gatgtcaaaa acgatttttgc 250
 gttccttctt cacatggttag accagtatga ccagctatat tccaagcggt 300
 ttggtgtggt cttgtcagaa gttagtgaat ataaacttag ggaaattagt 350
 ttgaaccatg agtggacatt tgaaaaactc aggcagcaca tttcacgcaa 400
 cgcccaggac aagcaggagt tgcattctgt catgctgtcg ggggtgcccg 450
 atgctgtctt tgacctcaca gacctggatg tgctaaagct tgaactaatt 500
 ccagaagcta aaattcctgc taagatttct caaatgacta acctccaaga 550
 gctccacctc tgccactgcc ctgcaaaagt tgaacagact gcttttagct 600
 ttcttcgcga tcacttgaga tgccttcacg tgaagtccac tgatgtggct 650
 gaaattcctg cctgggtgta ttgctcaaa aaccttcgag agttgtactt 700
 aataggcaat ttgaactctg aaaacaataa gatgatagga cttgaatctc 750
 tccgagagtt gcggcacctt aagattctcc acgtgaagag caatttgacc 800
 aaagttccct ccaacattac agatgtggct ccacatctta caaagttagt 850
 cattcataat gacggcacta aactcttggt actgaacagc ctttaagaaa 900
 tgatgaatgt cgctgagctg gaactccaga actgtgagct agagagaatc 950
 ccacatgcta ttttcagcct ctctaattta caggaactgg atttaaagtc 1000
 caataacatt cgcacaattg aggaaatcat cagtttccag catttaaaac 1050
 gactgacttg tttaaaatta tggcataaca aaattgttac tattcctccc 1100
 tctattaccc atgtcaaaaa cttggagtca ctttatttct ctaacaacaa 1150
 gctcgaatcc ttaccagtgg cagtatttag ttacagaaa ctcagatgct 1200
 tagatgtgag ctacaacaac atttcaatga ttccaataga aataggattg 1250
 cttcagaacc tgcagcattt gcatatcact gggaacaaag tggacattct 1300
 gccaaaacaa ttgttttaaat gcataaagtt gaggactttg aatctgggac 1350
 agaactgcat cacctcactc ccagagaaaag ttggtcagct ctcccagctc 1400
 actcagctgg agctgaaggg gaactgcttg gaccgcctgc cagcccagct 1450
 gggccagtgt cggatgctca agaaaagcgg gcttggtgtg gaagatcacc 1500
 tttttgatac cctgccactc gaagtcaaag aggcattgaa tcaagacata 1550
 aatattccct ttgcaaatgg gatttaaact aagataatat atgcacagtg 1600
 atgtgcagga acaacttct agattgcaag tgctcacgta caagttatta 1650
 caagataatg catttttagga gtagatacat cttttaaaat aaaacagaga 1700

ggatgcatag aaggctgata gaagacataa ctgaatgttc aatgtttgta 1750
 ggggttttaag tcattcattt ccaaatacatt tttttttttc ttttggggaa 1800
 agggaaggaa aaattataat cactaatctt gggtcttttt aaattgtttg 1850
 taacttggat gctgccgcta ctgaatgttt acaaattgct tgcctgctaa 1900
 agtaaagat taaattgaca ttttcttact aaaaaaaaaa aaaaaaa 1947

<210> 185
 <211> 501
 <212> PRT
 <213> Homo Sapien

<400> 185
 Met Ala Tyr Met Leu Lys Lys Leu Leu Ile Ser Tyr Ile Ser Ile
 1 5 10 15
 Ile Cys Val Tyr Gly Phe Ile Cys Leu Tyr Thr Leu Phe Trp Leu
 20 25 30
 Phe Arg Ile Pro Leu Lys Glu Tyr Ser Phe Glu Lys Val Arg Glu
 35 40 45
 Glu Ser Ser Phe Ser Asp Ile Pro Asp Val Lys Asn Asp Phe Ala
 50 55 60
 Phe Leu Leu His Met Val Asp Gln Tyr Asp Gln Leu Tyr Ser Lys
 65 70 75
 Arg Phe Gly Val Phe Leu Ser Glu Val Ser Glu Asn Lys Leu Arg
 80 85 90
 Glu Ile Ser Leu Asn His Glu Trp Thr Phe Glu Lys Leu Arg Gln
 95 100 105
 His Ile Ser Arg Asn Ala Gln Asp Lys Gln Glu Leu His Leu Phe
 110 115 120
 Met Leu Ser Gly Val Pro Asp Ala Val Phe Asp Leu Thr Asp Leu
 125 130 135
 Asp Val Leu Lys Leu Glu Leu Ile Pro Glu Ala Lys Ile Pro Ala
 140 145 150
 Lys Ile Ser Gln Met Thr Asn Leu Gln Glu Leu His Leu Cys His
 155 160 165
 Cys Pro Ala Lys Val Glu Gln Thr Ala Phe Ser Phe Leu Arg Asp
 170 175 180
 His Leu Arg Cys Leu His Val Lys Phe Thr Asp Val Ala Glu Ile
 185 190 195
 Pro Ala Trp Val Tyr Leu Leu Lys Asn Leu Arg Glu Leu Tyr Leu
 200 205 210

Ile Gly Asn Leu	Asn Ser Glu Asn Asn	Lys Met Ile Gly Leu Glu	215	220	225
Ser Leu Arg Glu	Leu Arg His Leu Lys	Ile Leu His Val Lys Ser	230	235	240
Asn Leu Thr Lys	Val Pro Ser Asn Ile	Thr Asp Val Ala Pro His	245	250	255
Leu Thr Lys Leu	Val Ile His Asn Asp	Gly Thr Lys Leu Leu Val	260	265	270
Leu Asn Ser Leu	Lys Lys Met Met Asn	Val Ala Glu Leu Glu Leu	275	280	285
Gln Asn Cys Glu	Leu Glu Arg Ile Pro	His Ala Ile Phe Ser Leu	290	295	300
Ser Asn Leu Gln	Glu Leu Asp Leu Lys	Ser Asn Asn Ile Arg Thr	305	310	315
Ile Glu Glu Ile	Ile Ser Phe Gln His	Leu Lys Arg Leu Thr Cys	320	325	330
Leu Lys Leu Trp	His Asn Lys Ile Val	Thr Ile Pro Pro Ser Ile	335	340	345
Thr His Val Lys	Asn Leu Glu Ser Leu	Tyr Phe Ser Asn Asn Lys	350	355	360
Leu Glu Ser Leu	Pro Val Ala Val Phe	Ser Leu Gln Lys Leu Arg	365	370	375
Cys Leu Asp Val	Ser Tyr Asn Asn Ile	Ser Met Ile Pro Ile Glu	380	385	390
Ile Gly Leu Leu	Gln Asn Leu Gln His	Leu His Ile Thr Gly Asn	395	400	405
Lys Val Asp Ile	Leu Pro Lys Gln Leu	Phe Lys Cys Ile Lys Leu	410	415	420
Arg Thr Leu Asn	Leu Gly Gln Asn Cys	Ile Thr Ser Leu Pro Glu	425	430	435
Lys Val Gly Gln	Leu Ser Gln Leu Thr	Gln Leu Glu Leu Lys Gly	440	445	450
Asn Cys Leu Asp	Arg Leu Pro Ala Gln	Leu Gly Gln Cys Arg Met	455	460	465
Leu Lys Lys Ser	Gly Leu Val Val Glu	Asp His Leu Phe Asp Thr	470	475	480
Leu Pro Leu Glu	Val Lys Glu Ala Leu	Asn Gln Asp Ile Asn Ile	485	490	495
Pro Phe Ala Asn	Gly Ile		500		

<210> 186
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic Oligonucleotide Probe

<400> 186
cctccctcta ttacccatgt c 21

<210> 187
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic Oligonucleotide Probe

<400> 187
gaccaacttt ctctgggagt gagg 24

<210> 188
<211> 47
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic Oligonucleotide Probe

<400> 188
gtcactttat ttctctaaca acaagctcga atccttacca gtggcag 47

<210> 189
<211> 2917
<212> DNA
<213> Homo Sapien

<400> 189
cccacgcgtc cggccttctc tctggacttt gcatttccat tccttttcat 50
tgacaaactg acttttttta tttctttttt tccatctctg ggccagcttg 100
ggatcctagg ccgccctggg aagacatttg tgttttacac acataaggat 150
ctgtgttttg gggtttcttct tctccccctg acattggcat tgcttagtgg 200
ttgtgtgggg agggagacca cgtgggctca gtgcttgctt gcacttatct 250
gcctaggtac atcgaagtct tttgacctcc atacagtgat tatgcctgtc 300
atcgctggtg gtatcctggc ggccttgctc ctgctgatag ttgtcgtgct 350
ctgtctttac ttcaaaatac acaacgcgct aaaagctgca aaggaacctg 400
aagctgtggc tgtaaaaaat cacaaccag acaaggtgtg gtgggccaag 450
aacagccagg ccaaaaccat tgccacggag tcttgtcctg ccctgcagtg 500

ctgtgaagga tatagaatgt gtgccagttt tgattccctg ccaccttgct 550
 gttgcgacat aaatgagggc ctctgagtta ggaaaggctc ccttctcaaa 600
 gcagagccct gaagacttca atgatgtcaa tgaggccacc tgtttgtgat 650
 gtgcaggcac agaagaaagg cacagctccc catcagtttc atggaaaata 700
 actcagtgcc tgctgggaac .cagctgctgg agatccctac agagagcttc 750
 cactgggggc aacccttcca ggaaggagtt ggggagagag aaccctcact 800
 gtggggaatg ctgataaacc agtcacacag ctgctctatt ctcacacaaa 850
 tctaccctt gcgtggctgg aactgacgtt tccctggagg tgtccagaaa 900
 gctgatgtaa cacagagcct ataaaagctg tcggtcctta aggctgcca 950
 gcgccttgcc aaaatggagc ttgtaagaag gctcatgcca ttgaccctct 1000
 taattctctc ctgtttggcg gagctgacaa tggcggaggc tgaaggcaat 1050
 gcaagctgca cagtcagtct agggggtgcc aatatggcag agaccacaa 1100
 agccatgatc ctgcaactca atcccagtga gaactgcacc tggacaatag 1150
 aaagaccaga aaacaaaagc atcagaatta tcttttctta tgtccagctt 1200
 gatccagatg gaagctgtga aagtgaaaac attaaagtct ttgacggaac 1250
 ctccagcaat gggcctctgc tagggcaagt ctgcagtaaa aacgactatg 1300
 ttctgttatt tgaatcatca tccagtacat tgacgtttca aatagttact 1350
 gactcagcaa gaattcaaag aactgtcttt gtcttctact acttcttctc 1400
 tctaacatc tctattccaa actgtggcgg ttacctggat accttggaag 1450
 gatccttcac cagccccaat tacccaaagc cgcacctga gctggcttat 1500
 tgtgtgtggc acatacaagt ggagaaagat tacaagataa aactaaactt 1550
 caaagagatt ttcctagaaa tagacaaaca gtgcaaattt gattttcttg 1600
 ccatctatga tggccccctc accaactctg gcctgattgg acaagtctgt 1650
 ggccgtgtga ctcccacctt cgaatcgtca tcaaactctc tgactgtcgt 1700
 gttgtctaca gattatgcca attcttaccg gggattttct gcttctaca 1750
 cctcaattta tgcagaaaac atcaacacta catctttaac ttgctcttct 1800
 gacaggatga gagttattat aagcaaacc tacctagagg cttttaactc 1850
 taatgggaat aacttgcaac taaaagacc aacttgacaga ccaaaattat 1900
 caaatgttgt ggaattttct gtccctctta atggatgtgg tacaatcaga 1950
 aaggtagaag atcagtcaat tacttacacc aatataatca ccttttctgc 2000

atcctcaact tctgaagtga tcacccgtca gaaacaactc cagattattg 2050
 tgaagtgtga aatgggacat aattctacag tggagataat atacataaca 2100
 gaagatgatg taatacaaag tcaaaatgca ctgggcaa ataacaccag 2150
 catggctctt tttgaatcca attcatttga aaagactata cttgaatcac 2200
 catattatgt ggatttgaac caaactcttt ttgttcaagt tagtctgcac 2250
 acctcagatc caaatttggg ggtgtttctt gatacctgta gagcctctcc 2300
 cacctctgac tttgcatctc caacctacga cctaatacaag agtggatgta 2350
 gtcgagatga aacttgtaag gtgtatccct tatttggaca ctatgggaga 2400
 ttccagttta atgcctttaa attcttgaga agtatgagct ctgtgtatct 2450
 gcagtgtaaa gttttgatat gtgatagcag tgaccaccag tctcgctgca 2500
 atcaagggtg tgtctccaga agcaaacgag acatttcttc atataaatgg 2550
 aaaacagatt ccatcatagg acccattcgt ctgaaaaggg atcgaagtgc 2600
 aagtggcaat tcaggatttc agcatgaaac acatgcggaa gaaactcaa 2650
 accagccttt caacagtgtg catctgtttt ccttcatggg tctagctctg 2700
 aatgtggtga ctgtagcgac aatcacagtg aggcattttg taaatcaacg 2750
 ggcagactac aaataccaga agctgcagaa ctattaacta acaggtcaa 2800
 ccctaagtga gacatgtttc tccaggatgc caaaggaaat gctacctcgt 2850
 ggctacacat attatgaata aatgaggaag ggctgaaag tgacacacag 2900
 gcctgcatgt aaaaaaa 2917

<210> 190
 <211> 607
 <212> PRT
 <213> Homo Sapien

<400> 190
 Met Glu Leu Val Arg Arg Leu Met Pro Leu Thr Leu Leu Ile Leu
 1 5 10 15
 Ser Cys Leu Ala Glu Leu Thr Met Ala Glu Ala Glu Gly Asn Ala
 20 25 30
 Ser Cys Thr Val Ser Leu Gly Gly Ala Asn Met Ala Glu Thr His
 35 40 45
 Lys Ala Met Ile Leu Gln Leu Asn Pro Ser Glu Asn Cys Thr Trp
 50 55 60
 Thr Ile Glu Arg Pro Glu Asn Lys Ser Ile Arg Ile Ile Phe Ser
 65 70 75

Tyr	Val	Gln	Leu	Asp	Pro	Asp	Gly	Ser	Cys	Glu	Ser	Glu	Asn	Ile		80	85	90
Lys	Val	Phe	Asp	Gly	Thr	Ser	Ser	Asn	Gly	Pro	Leu	Leu	Gly	Gln		95	100	105
Val	Cys	Ser	Lys	Asn	Asp	Tyr	Val	Pro	Val	Phe	Glu	Ser	Ser	Ser		110	115	120
Ser	Thr	Leu	Thr	Phe	Gln	Ile	Val	Thr	Asp	Ser	Ala	Arg	Ile	Gln		125	130	135
Arg	Thr	Val	Phe	Val	Phe	Tyr	Tyr	Phe	Phe	Ser	Pro	Asn	Ile	Ser		140	145	150
Ile	Pro	Asn	Cys	Gly	Gly	Tyr	Leu	Asp	Thr	Leu	Glu	Gly	Ser	Phe		155	160	165
Thr	Ser	Pro	Asn	Tyr	Pro	Lys	Pro	His	Pro	Glu	Leu	Ala	Tyr	Cys		170	175	180
Val	Trp	His	Ile	Gln	Val	Glu	Lys	Asp	Tyr	Lys	Ile	Lys	Leu	Asn		185	190	195
Phe	Lys	Glu	Ile	Phe	Leu	Glu	Ile	Asp	Lys	Gln	Cys	Lys	Phe	Asp		200	205	210
Phe	Leu	Ala	Ile	Tyr	Asp	Gly	Pro	Ser	Thr	Asn	Ser	Gly	Leu	Ile		215	220	225
Gly	Gln	Val	Cys	Gly	Arg	Val	Thr	Pro	Thr	Phe	Glu	Ser	Ser	Ser		230	235	240
Asn	Ser	Leu	Thr	Val	Val	Leu	Ser	Thr	Asp	Tyr	Ala	Asn	Ser	Tyr		245	250	255
Arg	Gly	Phe	Ser	Ala	Ser	Tyr	Thr	Ser	Ile	Tyr	Ala	Glu	Asn	Ile		260	265	270
Asn	Thr	Thr	Ser	Leu	Thr	Cys	Ser	Ser	Asp	Arg	Met	Arg	Val	Ile		275	280	285
Ile	Ser	Lys	Ser	Tyr	Leu	Glu	Ala	Phe	Asn	Ser	Asn	Gly	Asn	Asn		290	295	300
Leu	Gln	Leu	Lys	Asp	Pro	Thr	Cys	Arg	Pro	Lys	Leu	Ser	Asn	Val		305	310	315
Val	Glu	Phe	Ser	Val	Pro	Leu	Asn	Gly	Cys	Gly	Thr	Ile	Arg	Lys		320	325	330
Val	Glu	Asp	Gln	Ser	Ile	Thr	Tyr	Thr	Asn	Ile	Ile	Thr	Phe	Ser		335	340	345
Ala	Ser	Ser	Thr	Ser	Glu	Val	Ile	Thr	Arg	Gln	Lys	Gln	Leu	Gln		350	355	360
Ile	Ile	Val	Lys	Cys	Glu	Met	Gly	His	Asn	Ser	Thr	Val	Glu	Ile		365	370	375

Ile Tyr Ile Thr	Glu Asp Asp Val	Ile Gln Ser Gln Asn Ala Leu	380	385	390
Gly Lys Tyr Asn	Thr Ser Met Ala Leu	Phe Glu Ser Asn Ser Phe	395	400	405
Glu Lys Thr Ile	Leu Glu Ser Pro Tyr	Tyr Val Asp Leu Asn Gln	410	415	420
Thr Leu Phe Val	Gln Val Ser Leu His	Thr Ser Asp Pro Asn Leu	425	430	435
Val Val Phe Leu	Asp Thr Cys Arg Ala	Ser Pro Thr Ser Asp Phe	440	445	450
Ala Ser Pro Thr	Tyr Asp Leu Ile Lys	Ser Gly Cys Ser Arg Asp	455	460	465
Glu Thr Cys Lys	Val Tyr Pro Leu Phe	Gly His Tyr Gly Arg Phe	470	475	480
Gln Phe Asn Ala	Phe Lys Phe Leu Arg	Ser Met Ser Ser Val Tyr	485	490	495
Leu Gln Cys Lys	Val Leu Ile Cys Asp	Ser Ser Asp His Gln Ser	500	505	510
Arg Cys Asn Gln	Gly Cys Val Ser Arg	Ser Lys Arg Asp Ile Ser	515	520	525
Ser Tyr Lys Trp	Lys Thr Asp Ser Ile	Ile Gly Pro Ile Arg Leu	530	535	540
Lys Arg Asp Arg	Ser Ala Ser Gly Asn	Ser Gly Phe Gln His Glu	545	550	555
Thr His Ala Glu	Glu Thr Pro Asn Gln	Pro Phe Asn Ser Val His	560	565	570
Leu Phe Ser Phe	Met Val Leu Ala Leu	Asn Val Val Thr Val Ala	575	580	585
Thr Ile Thr Val	Arg His Phe Val Asn	Gln Arg Ala Asp Tyr Lys	590	595	600
Tyr Gln Lys Leu	Gln Asn Tyr		605		

<210> 191

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Oligonucleotide Probe

<400> 191

tctctattcc aaactgtggc g 21

<210> 192
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic Oligonucleotide Probe

<400> 192
tttgatgacg attcgaaggt gg 22

<210> 193
<211> 47
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic Oligonucleotide Probe

<400> 193
ggaaggatcc ttcaccagcc ccaattaccc aaagccgcat cctgagc 47

<210> 194
<211> 2362
<212> DNA
<213> Homo Sapien

<400> 194
gacggaagaa cagcgctccc gaggccgagg gagcctgcag agaggacagc 50
cggcctgcgc cgggacatgc ggccccagga gctccccagg ctgcggttcc 100
cgttgctgct gttgctgttg ctgctgctgc cgccgcccgc gtgccctgcc 150
cacagcgcca cgcgcttcga cccacctgg gagtccctgg acgcccgcca 200
gctgcccgcg tggtttgacc aggccaagtt cggcatcttc atccactggg 250
gagtgttttc cgtgccagc ttcggtagcg agtggttctg gtggtattgg 300
caaaaggaaa agataccgaa gtatgtggaa tttatgaaag ataattaccc 350
tcctagtttc aaatatgaag attttgacc actatttaca gcaaaatttt 400
ttaatgccaa ccagtgggca gatatttttc aggccctctgg tgccaaatac 450
attgtcttaa cttccaaaca tcatgaaggc tttaccttgt gggggtcaga 500
atattcgtgg aactggaatg ccatagatga ggggcccag agggacattg 550
tcaaggaact tgaggtagcc attaggaaca gaactgacct gcgttttgga 600
ctgtactatt ccctttttga atggtttcat ccgctcttcc ttgaggatga 650
atccagttca ttccataagc ggcaatttcc agtttctaag acattgccag 700
agctctatga gttagtgaac aactatcagc ctgagggttct gtggtcggat 750
ggtgacggag gagcaccgga tcaatactgg aacagcacag gcttcttggc 800

ctgggttatat aatgaaagcc cagttcgggg cacagtagtc accaatgatc 850
gttggggagc tggtagcatc tgtaagcatg gtggcttcta tacctgcagt 900
gatcgttata acccaggaca tcttttgcca cataaatggg aaaactgcat 950
gacaatagac aaactgtcct ggggctatag gagggaagct ggaatctctg 1000
actatcttac aattgaagaa ttggtgaagc aacttgtaga gacagtttca 1050
tgtggaggaa atcttttgat gaattattggg cccacactag atggcaccat 1100
ttctgtagtt tttgaggagc gactgaggca agtgggggtcc tggctaaaag 1150
tcaatggaga agctatttat gaaacctata cctggcgatc ccagaatgac 1200
actgtcacc cagatgtgtg gtacacatcc aagcctaaag aaaaattagt 1250
ctatgccatt tttcttaa at ggccacatc aggacagctg ttccttgcc 1300
atcccaaagc tattctgggg gcaacagagg tgaaactact gggccatgga 1350
cagccactta actggatttc tttggagcaa aatggcatta tggtagaact 1400
gccacagcta accattcatc agatgccgtg taaatggggc tgggctctag 1450
ccctaactaa tgtgatctaa agtgcagcag agtggctgat gctgcaagtt 1500
atgtctaagg ctaggaacta tcaggtgtct ataattgtag cacatggaga 1550
aagcaatgta aactggataa gaaaattatt tggcagttca gccctttccc 1600
tttttcccac taaatttttc tttaaattacc catgtaacca ttttaactct 1650
ccagtgcact ttgccattaa agtctcttca cattgatttg tttccatgtg 1700
tgactcagag gtgagaattt tttcacatta tagtagcaag gaattgggtg 1750
tattatggac cgaactgaaa attttatgtt gaagccatat ccccatgat 1800
tatatagtta tgcatcactt aatatgggga tattttctgg gaaatgcatt 1850
gctagtcaat ttttttttgt gccaacatca tagagtgtat ttacaaaatc 1900
ctagatggca tagcctacta cacaccta at gtgtatggta tagactgttg 1950
ctcctaggct acagacatat acagcatgtt actgaatact gtaggcaata 2000
gtaacagtgg tatttgtata tcgaaacata tggaaacata gagaaggtac 2050
agtaaaaata ctgtaaaaata aatggtgcac ctgtataggg cacttaccac 2100
gaatggagct tacaggactg gaagttgctc tgggtgagtc agtgagtga 2150
tgtgaaggcc taggacatta ttgaacactg ccagacgtta taaatactgt 2200
atgcttaggc tacactacat ttataaaaaa agttttttct ttcttcaatt 2250
ataaattaac ataagtgtac tgtaacttta caaacgtttt aatttttaaa 2300

accttttttg ctctttttgta ataacactta gcttaaaaca taaactcatt 2350

gtgcaaatgt aa 2362

<210> 195

<211> 467

<212> PRT

<213> Homo Sapien

<400> 195

Met	Arg	Pro	Gln	Glu	Leu	Pro	Arg	Leu	Ala	Phe	Pro	Leu	Leu	Leu
1				5					10					15

Leu	Leu	Leu	Leu	Leu	Leu	Pro	Pro	Pro	Pro	Cys	Pro	Ala	His	Ser
				20					25					30

Ala	Thr	Arg	Phe	Asp	Pro	Thr	Trp	Glu	Ser	Leu	Asp	Ala	Arg	Gln
				35					40					45

Leu	Pro	Ala	Trp	Phe	Asp	Gln	Ala	Lys	Phe	Gly	Ile	Phe	Ile	His
				50					55					60

Trp	Gly	Val	Phe	Ser	Val	Pro	Ser	Phe	Gly	Ser	Glu	Trp	Phe	Trp
				65					70					75

Trp	Tyr	Trp	Gln	Lys	Glu	Lys	Ile	Pro	Lys	Tyr	Val	Glu	Phe	Met
				80					85					90

Lys	Asp	Asn	Tyr	Pro	Pro	Ser	Phe	Lys	Tyr	Glu	Asp	Phe	Gly	Pro
				95					100					105

Leu	Phe	Thr	Ala	Lys	Phe	Phe	Asn	Ala	Asn	Gln	Trp	Ala	Asp	Ile
				110					115					120

Phe	Gln	Ala	Ser	Gly	Ala	Lys	Tyr	Ile	Val	Leu	Thr	Ser	Lys	His
				125					130					135

His	Glu	Gly	Phe	Thr	Leu	Trp	Gly	Ser	Glu	Tyr	Ser	Trp	Asn	Trp
				140					145					150

Asn	Ala	Ile	Asp	Glu	Gly	Pro	Lys	Arg	Asp	Ile	Val	Lys	Glu	Leu
				155					160					165

Glu	Val	Ala	Ile	Arg	Asn	Arg	Thr	Asp	Leu	Arg	Phe	Gly	Leu	Tyr
				170					175					180

Tyr	Ser	Leu	Phe	Glu	Trp	Phe	His	Pro	Leu	Phe	Leu	Glu	Asp	Glu
				185					190					195

Ser	Ser	Ser	Phe	His	Lys	Arg	Gln	Phe	Pro	Val	Ser	Lys	Thr	Leu
				200					205					210

Pro	Glu	Leu	Tyr	Glu	Leu	Val	Asn	Asn	Tyr	Gln	Pro	Glu	Val	Leu
				215					220					225

Trp	Ser	Asp	Gly	Asp	Gly	Gly	Ala	Pro	Asp	Gln	Tyr	Trp	Asn	Ser
				230					235					240

Thr	Gly	Phe	Leu	Ala	Trp	Leu	Tyr	Asn	Glu	Ser	Pro	Val	Arg	Gly	245	250	255
Thr	Val	Val	Thr	Asn	Asp	Arg	Trp	Gly	Ala	Gly	Ser	Ile	Cys	Lys	260	265	270
His	Gly	Gly	Phe	Tyr	Thr	Cys	Ser	Asp	Arg	Tyr	Asn	Pro	Gly	His	275	280	285
Leu	Leu	Pro	His	Lys	Trp	Glu	Asn	Cys	Met	Thr	Ile	Asp	Lys	Leu	290	295	300
Ser	Trp	Gly	Tyr	Arg	Arg	Glu	Ala	Gly	Ile	Ser	Asp	Tyr	Leu	Thr	305	310	315
Ile	Glu	Glu	Leu	Val	Lys	Gln	Leu	Val	Glu	Thr	Val	Ser	Cys	Gly	320	325	330
Gly	Asn	Leu	Leu	Met	Asn	Ile	Gly	Pro	Thr	Leu	Asp	Gly	Thr	Ile	335	340	345
Ser	Val	Val	Phe	Glu	Glu	Arg	Leu	Arg	Gln	Val	Gly	Ser	Trp	Leu	350	355	360
Lys	Val	Asn	Gly	Glu	Ala	Ile	Tyr	Glu	Thr	Tyr	Thr	Trp	Arg	Ser	365	370	375
Gln	Asn	Asp	Thr	Val	Thr	Pro	Asp	Val	Trp	Tyr	Thr	Ser	Lys	Pro	380	385	390
Lys	Glu	Lys	Leu	Val	Tyr	Ala	Ile	Phe	Leu	Lys	Trp	Pro	Thr	Ser	395	400	405
Gly	Gln	Leu	Phe	Leu	Gly	His	Pro	Lys	Ala	Ile	Leu	Gly	Ala	Thr	410	415	420
Glu	Val	Lys	Leu	Leu	Gly	His	Gly	Gln	Pro	Leu	Asn	Trp	Ile	Ser	425	430	435
Leu	Glu	Gln	Asn	Gly	Ile	Met	Val	Glu	Leu	Pro	Gln	Leu	Thr	Ile	440	445	450
His	Gln	Met	Pro	Cys	Lys	Trp	Gly	Trp	Ala	Leu	Ala	Leu	Thr	Asn	455	460	465

Val Ile

<210> 196

<211> 23

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Oligonucleotide Probe

<400> 196

tggtttgacc aggccaagtt cgg 23

<210> 197

<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic Oligonucleotide Probe

<400> 197
ggattcatcc tcaaggaaga gcgg 24

<210> 198
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic Oligonucleotide Probe

<400> 198
aacttgcagc atcagccact ctgc 24

<210> 199
<211> 45
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic Oligonucleotide Probe

<400> 199
ttccgtgccc agcttcggta gcgagtggtt ctggtggtat tggca 45

<210> 200
<211> 2372
<212> DNA
<213> Homo Sapien

<400> 200
agcagggaaa tccggatgtc tcggttatga agtggagcag tgagtgtgag 50
cctcaacata gttccagaac tctccatccg gactagttat tgagcatctg 100
cctctcatat caccagtggc catctgaggt gtttccttgg ctctgaaggg 150
gtaggcacga tggccagggtg cttcagcctg gtgttgcttc tcacttccat 200
ctggaccacg aggctcctgg tccaaggctc tttgcgtgca gaagagcttt 250
ccatccaggt gtcatgcaga attatgggga tcacccttgt gagcaaaaag 300
gcgaaccagc agctgaattt cacagaagct aaggaggcct gtaggctgct 350
gggactaagt ttggccggca aggaccaagt tgaaacagcc ttgaaagcta 400
gctttgaaac ttgcagctat ggctgggttg gagatggatt cgtgggtcatc 450
tctaggatta gcccaaacc caagtgtggg aaaaatgggg tgggtgtcct 500
gatttggaag gttccagtga gccgacagtt tgcagcctat tgttacaact 550

catctgatac ttggactaac tcgtgcatto cagaaattat caccaccaa 600
gatcccatat tcaacactca aactgcaaca caaacaacag aatttattgt 650
cagtgcagct acctactcgg tggcatcccc ttactctaca atacctgccc 700
ctactactac tcctcctgct ccagcttcca cttctattcc acggagaaaa 750
aaattgattt gtgtcacaga agtttttatg gaaactagca ccatgtctac 800
agaaactgaa ccatttgttg aaaataaagc agcattcaag aatgaagctg 850
ctggggtttg aggtgtcccc acggctctgc tagtgcttgc tctcctcttc 900
tttgggtgctg cagctggctt tggattttgc tatgtcaaaa ggtatgtgaa 950
ggccttcctt ttacaaaaca agaatcagca gaaggaaatg atcgaaacca 1000
aagtagtaaa ggaggagaag gccaatgata gcaaccctaa tgaggaaatca 1050
aagaaaactg ataaaaaccc agaagagtcc aagagtccaa gcaaaaactac 1100
cgtgcgatgc ctggaagctg aagtttagat gagacagaaa tgaggagaca 1150
cacctgaggc tggtttcttt catgctcctt accctgcccc agctggggaa 1200
atcaaaaggg ccaaagaacc aaagaagaaa gtccaccctt ggttcctaac 1250
tggaatcagc tcaggactgc cattggacta tggagtgcac caaagagaat 1300
gcccttctcc ttattgtaac cctgtctgga tcctatcctc ctacctcaa 1350
agcttcccac ggcctttcta gcctggctat gtccataata tatccactg 1400
ggagaaagga gttttgcaaa gtgcaaggac ctaaaacatc tcatcagtat 1450
ccagtggtaa aaaggcctcc tggctgtctg aggctagggtg ggttgaaagc 1500
caaggagtca ctgagaccaa ggctttctct actgattccg cagctcagac 1550
cctttcttca gctctgaaag agaaacacgt atcccacctg acatgtcctt 1600
ctgagccccg taagagcaaa agaatggcag aaaagttag cccctgaaag 1650
ccatggagat tctcataact tgagacctaa tctctgtaaa gctaaaataa 1700
agaaatagaa caaggctgag gatacgacag tacactgtca gcagggactg 1750
taaacacaga cagggtcaaa gtgttttctc tgaacacatt gagggtggaat 1800
cactgtttag aacacacaca cttacttttt ctggtctcta ccactgctga 1850
tattttctct aggaaatata cttttacaag taacaaaaat aaaaactctt 1900
ataaatttct atttttatct gagttacaga aatgattact aaggaagatt 1950
actcagtaat ttgtttaaaa agtaataaaa ttcaacaaac atttgctgaa 2000

tagctactat atgtcaagt ctgtgcaagg tattacactc tgtaattgaa 2050
 tattattcct caaaaaattg cacatagtag aacgctatct gggaagctat 2100
 ttttttcagt tttgatattt ctagcttata tacttccaaa ctaattttta 2150
 tttttgctga gactaatctt attcattttc tctaatatgg caaccattat 2200
 aaccttaatt tattattaac atacctaaga agtacattgt tacctctata 2250
 taccaaagca catttttaaaa gtgccattaa caaatgtatc actagccctc 2300
 ctttttccaa caagaaggga ctgagagatg cagaaatatt tgtgacaaaa 2350
 aattaaagca tttagaaaac tt 2372

<210> 201
 <211> 322
 <212> PRT
 <213> Homo Sapien

<400> 201
 Met Ala Arg Cys Phe Ser Leu Val Leu Leu Leu Thr Ser Ile Trp
 1 5 10 15
 Thr Thr Arg Leu Leu Val Gln Gly Ser Leu Arg Ala Glu Glu Leu
 20 25 30
 Ser Ile Gln Val Ser Cys Arg Ile Met Gly Ile Thr Leu Val Ser
 35 40 45
 Lys Lys Ala Asn Gln Gln Leu Asn Phe Thr Glu Ala Lys Glu Ala
 50 55 60
 Cys Arg Leu Leu Gly Leu Ser Leu Ala Gly Lys Asp Gln Val Glu
 65 70 75
 Thr Ala Leu Lys Ala Ser Phe Glu Thr Cys Ser Tyr Gly Trp Val
 80 85 90
 Gly Asp Gly Phe Val Val Ile Ser Arg Ile Ser Pro Asn Pro Lys
 95 100 105
 Cys Gly Lys Asn Gly Val Gly Val Leu Ile Trp Lys Val Pro Val
 110 115 120
 Ser Arg Gln Phe Ala Ala Tyr Cys Tyr Asn Ser Ser Asp Thr Trp
 125 130 135
 Thr Asn Ser Cys Ile Pro Glu Ile Ile Thr Thr Lys Asp Pro Ile
 140 145 150
 Phe Asn Thr Gln Thr Ala Thr Gln Thr Thr Glu Phe Ile Val Ser
 155 160 165
 Asp Ser Thr Tyr Ser Val Ala Ser Pro Tyr Ser Thr Ile Pro Ala
 170 175 180
 Pro Thr Thr Thr Pro Pro Ala Pro Ala Ser Thr Ser Ile Pro Arg
 185 190 195

Arg	Lys	Lys	Leu	Ile	Cys	Val	Thr	Glu	Val	Phe	Met	Glu	Thr	Ser	
				200					205					210	
Thr	Met	Ser	Thr	Glu	Thr	Glu	Pro	Phe	Val	Glu	Asn	Lys	Ala	Ala	
				215					220					225	
Phe	Lys	Asn	Glu	Ala	Ala	Gly	Phe	Gly	Gly	Val	Pro	Thr	Ala	Leu	
				230					235					240	
Leu	Val	Leu	Ala	Leu	Leu	Phe	Phe	Gly	Ala	Ala	Ala	Gly	Leu	Gly	
				245					250					255	
Phe	Cys	Tyr	Val	Lys	Arg	Tyr	Val	Lys	Ala	Phe	Pro	Phe	Thr	Asn	
				260					265					270	
Lys	Asn	Gln	Gln	Lys	Glu	Met	Ile	Glu	Thr	Lys	Val	Val	Lys	Glu	
				275					280					285	
Glu	Lys	Ala	Asn	Asp	Ser	Asn	Pro	Asn	Glu	Glu	Ser	Lys	Lys	Thr	
				290					295					300	
Asp	Lys	Asn	Pro	Glu	Glu	Ser	Lys	Ser	Pro	Ser	Lys	Thr	Thr	Val	
				305					310					315	
Arg	Cys	Leu	Glu	Ala	Glu	Val									
				320											

<210> 202

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Oligonucleotide Probe

<400> 202

gagctttcca tccaggtgtc atgc 24

<210> 203

<211> 22

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Oligonucleotide Probe

<400> 203

gtcagtgaca gtacctactc gg 22

<210> 204

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Oligonucleotide Probe

<400> 204

tggagcagga ggagtagtag tagg 24

<210> 205
 <211> 50
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic Oligonucleotide Probe
 <400> 205
 aggaggcctg taggctgctg ggactaagtt tggccggcaa ggaccaagtt 50

<210> 206
 <211> 1620
 <212> DNA
 <213> Homo Sapien

<220>
 <221> unsure
 <222> 973, 977, 996, 1003
 <223> unknown base

<400> 206
 agatggcgggt cttggcacct ctaattgctc tcgtgtattc ggtgccgcga 50
 ctttcacgat ggctcgccca accttactac cttctgtcgg ccctgctctc 100
 tgctgccttc ctactcgtga ggaaactgcc gccgctctgc cacggtctgc 150
 ccaccaacg cgaagacggt aaccctgtg actttgactg gagagaagtg 200
 gagatcctga tgtttctcag tgccattgtg atgatgaaga accgcagatc 250
 catcactgtg gagcaacata taggcaacat tttcatgttt agtaaagtgg 300
 ccaacacaat tcttttcttc cgcttgata ttgcgatggg cctactttac 350
 atcacactct gcatagtgtt cctgatgacg tgcaaaccac ccctatatat 400
 gggccctgag tatatcaagt acttcaatga taaaaccatt gatgaggaac 450
 tagaacggga caagagggtc acttggattg tggagttctt tgccaattgg 500
 tctaatactg gccaatcatt tgcccctatc tatgctgacc tctcccttaa 550
 atacaactgt acagggctaa attttgggaa ggtggatgtt ggacgctata 600
 ctgatgttag tacgcggtac aaagtgagca catcacccct caccaagcaa 650
 ctccctaccc tgatcctgtt ccaaggtggc aaggaggcaa tgcggcggcc 700
 acagattgac aagaaaggac gggctgtctc atggaccttc tctgaggaga 750
 atgtgatccg agaatttaac ttaaatagac tataaccagc ggccaagaaa 800
 ctatcaaagg ctggagacaa tatccctgag gagcagcctg tggcttcaac 850
 cccaccaca gtgtcagatg gggaaaacaa gaaggataaa taagatcctc 900

actttggcag tgcttcctct cctgtcaatt ccaggctctt tccataacca 950
caagcctgag gctgcagcct ttnattnatg ttttcccttt ggctgngact 1000
ggntggggca gcatgcagct tctgatttta aagaggcatc tagggaattg 1050
tcaggcaccc tacaggaagg cctgccatgc tgtggccaac tgtttactg 1100
gagcaagaaa gagatctcat aggacggagg gggaaatggt ttccctccaa 1150
gcttgggtca gtgtgttaac tgcttatcag ctattcagac atctccatgg 1200
tttctccatg aaactctgtg gtttcatcat tccttcttag ttgacctgca 1250
cagcttggtt agacctagat ttaaccctaa ggtaagatgc tggggtatag 1300
aacgctaaga attttcccc aaggactctt gcttccttaa gcccttctgg 1350
cttcgtttat ggtcttcatt aaaagtataa gcctaacttt gtcgctagtc 1400
ctaaggagaa acctttaacc acaaagtttt tatcattgaa gacaatattg 1450
aacaaccccc tattttgtgg ggattgagaa ggggtgaata gaggcttgag 1500
actttccttt gtgtggtagg acttgaggga gaaatcccct ggactttcac 1550
taaccctctg acatactccc cacaccagc tgatggcttt ccgtaataaa 1600
aagattggga tttccttttg 1620

<210> 207

<211> 296

<212> PRT

<213> Homo Sapien

<400> 207

Met	Ala	Val	Leu	Ala	Pro	Leu	Ile	Ala	Leu	Val	Tyr	Ser	Val	Pro
1				5					10					15
Arg	Leu	Ser	Arg	Trp	Leu	Ala	Gln	Pro	Tyr	Tyr	Leu	Leu	Ser	Ala
				20					25					30
Leu	Leu	Ser	Ala	Ala	Phe	Leu	Leu	Val	Arg	Lys	Leu	Pro	Pro	Leu
				35					40					45
Cys	His	Gly	Leu	Pro	Thr	Gln	Arg	Glu	Asp	Gly	Asn	Pro	Cys	Asp
				50					55					60
Phe	Asp	Trp	Arg	Glu	Val	Glu	Ile	Leu	Met	Phe	Leu	Ser	Ala	Ile
				65					70					75
Val	Met	Met	Lys	Asn	Arg	Arg	Ser	Ile	Thr	Val	Glu	Gln	His	Ile
				80					85					90
Gly	Asn	Ile	Phe	Met	Phe	Ser	Lys	Val	Ala	Asn	Thr	Ile	Leu	Phe
				95					100					105
Phe	Arg	Leu	Asp	Ile	Arg	Met	Gly	Leu	Leu	Tyr	Ile	Thr	Leu	Cys
				110					115					120

Ile Val Phe Leu Met Thr Cys Lys Pro	Pro Leu Tyr Met Gly Pro	125	130	135
Glu Tyr Ile Lys Tyr Phe Asn Asp Lys Thr	Ile Asp Glu Glu Leu	140	145	150
Glu Arg Asp Lys Arg Val Thr Trp Ile	Val Glu Phe Phe Ala Asn	155	160	165
Trp Ser Asn Asp Cys Gln Ser Phe Ala	Pro Ile Tyr Ala Asp Leu	170	175	180
Ser Leu Lys Tyr Asn Cys Thr Gly Leu	Asn Phe Gly Lys Val Asp	185	190	195
Val Gly Arg Tyr Thr Asp Val Ser Thr	Arg Tyr Lys Val Ser Thr	200	205	210
Ser Pro Leu Thr Lys Gln Leu Pro Thr	Leu Ile Leu Phe Gln Gly	215	220	225
Gly Lys Glu Ala Met Arg Arg Pro Gln	Ile Asp Lys Lys Gly Arg	230	235	240
Ala Val Ser Trp Thr Phe Ser Glu Glu	Asn Val Ile Arg Glu Phe	245	250	255
Asn Leu Asn Glu Leu Tyr Gln Arg Ala	Lys Lys Leu Ser Lys Ala	260	265	270
Gly Asp Asn Ile Pro Glu Glu Gln Pro	Val Ala Ser Thr Pro Thr	275	280	285
Thr Val Ser Asp Gly Glu Asn Lys Lys	Asp Lys	290	295	

<210> 208

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Oligonucleotide Probe

<400> 208

gcttggatat tcgcatgggc ctac 24

<210> 209

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Oligonucleotide Probe

<400> 209

tggagacaat atccctgagg 20

<210> 210

<211> 24

<212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic Oligonucleotide Probe

 <400> 210
 aacagttggc cacagcatgg cagg 24

 <210> 211
 <211> 50
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic Oligonucleotide Probe

 <400> 211
 ccattgatga ggaactagaa cgggacaaga gggtcacttg gattgtggag 50

 <210> 212
 <211> 1985
 <212> DNA
 <213> Homo Sapien

 <400> 212
 ggacagctcg cggccccga gagctctagc cgtcgaggag ctgcctgggg 50
 acgtttgccc tggggcccca gcctggcccg ggtcaccctg gcatgaggag 100
 atgggcctgt tgcctctggt ccattgtctc ctgctgcccc gctcctacgg 150
 actgcccttc tacaacggct tctactactc caacagcgcc aacgaccaga 200
 acctaggcaa cggatcatggc aaagacctcc ttaatggagt gaagctgggtg 250
 gtggagacac ccgaggagac cctgttcacc taccaagggg ccagtgtgat 300
 cctgccctgc cgctaccgct acgagccggc cctgggtctcc ccgcggcgtg 350
 tgcgtgtcaa atgggtggaag ctgtcggaga acggggcccc agagaaggac 400
 gtgctgggtg ccatcgggct gaggcaccgc tcctttgggg actaccaagg 450
 ccgcgtgcac ctgcggcagg acaaagagca tgacgtctcg ctggagatcc 500
 aggatctgcg gctggaggac tatgggcgtt accgctgtga ggatcattgac 550
 gggctggagg atgaaagcgg tctgggtggag ctggagctgc ggggtgtggt 600
 ctttccttac cagtccccca acgggcgcta ccagttcaac ttccacgagg 650
 gccagcaggt ctgtgcagag caggctgcgg tgggtggcctc ctttgagcag 700
 ctcttccggg cctgggagga gggcctggac tgggtgcaac cgggctgggt 750
 gcaggatgct acggtgcagt accccatcat gttgccccgg cagccctgcg 800
 gtggcccagg cctggcacct ggcgtgcgaa gctacggccc ccgccaccgc 850

cgctgcacc gctatgatgt attctgcttc gctactgccc tcaaggggcg 900
 ggtgtactac ctggagcacc ctgagaagct gacgctgaca gaggcaagg 950
 aggccctgcca ggaagatgat gccacgatcg ccaaggtggg acagctcttt 1000
 gccgcctgga agttccatgg cctggaccgc tgcgacgctg gctggctggc 1050
 agatggcagc gtccgctacc ctgtggttca cccgcatcct aactgtgggc 1100
 cccagagacc tgggggtccga agctttggct tccccgacct gcagagccgc 1150
 ttgtacggtg tttactgcta ccgccagcac taggacctgg ggccctcccc 1200
 tgccgcattc cctcactggc tgtgtattta ttgagtgggt cgttttccct 1250
 tgtgggttgg agccatttta actgttttta tacttctcaa tttaaatttt 1300
 ctttaaacad ttttttacta ttttttgtaa agcaaacaga acccaatgcc 1350
 tccctttgct cctggatgcc ccactccagg aatcatgctt gctcccctgg 1400
 gccatttgcg gttttgtggg cttctggagg gttccccgcc atccaggctg 1450
 gtctccctcc ctttaaggagg ttggtgcca gagtgggcgg tggcctgtct 1500
 agaatgccgc cgggagtcgg ggcatgggtg gcacagttct ccctgcccct 1550
 cagcctgggg gaagaagagg gcctcggggg cctccggagc tgggctttgg 1600
 gcctctcttg cccacctcta cttctctgtg aagccgctga cccagctctg 1650
 cccactgagg ggctagggct ggaagccagt tctaggcttc caggcgaaat 1700
 ctgagggaag gaagaaactc ccctccccgt tcccttccc ctctcggttc 1750
 caaagaatct gttttgttgt catttgtttc tctgtttcc ctgtgtgggg 1800
 aggggccctc aggtgtgtgt actttggaca ataaatggtg ctatgactgc 1850
 cttccgcaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 1900
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 1950
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaa 1985

<210> 213
 <211> 360
 <212> PRT
 <213> Homo Sapien

<400> 213
 Met Gly Leu Leu Leu Leu Val Pro Leu Leu Leu Leu Pro Gly Ser
 1 5 10 15
 Tyr Gly Leu Pro Phe Tyr Asn Gly Phe Tyr Tyr Ser Asn Ser Ala
 20 25 30

Asn	Asp	Gln	Asn	Leu	Gly	Asn	Gly	His	Gly	Lys	Asp	Leu	Leu	Asn	35	40	45
Gly	Val	Lys	Leu	Val	Val	Glu	Thr	Pro	Glu	Glu	Thr	Leu	Phe	Thr	50	55	60
Tyr	Gln	Gly	Ala	Ser	Val	Ile	Leu	Pro	Cys	Arg	Tyr	Arg	Tyr	Glu	65	70	75
Pro	Ala	Leu	Val	Ser	Pro	Arg	Arg	Val	Arg	Val	Lys	Trp	Trp	Lys	80	85	90
Leu	Ser	Glu	Asn	Gly	Ala	Pro	Glu	Lys	Asp	Val	Leu	Val	Ala	Ile	95	100	105
Gly	Leu	Arg	His	Arg	Ser	Phe	Gly	Asp	Tyr	Gln	Gly	Arg	Val	His	110	115	120
Leu	Arg	Gln	Asp	Lys	Glu	His	Asp	Val	Ser	Leu	Glu	Ile	Gln	Asp	125	130	135
Leu	Arg	Leu	Glu	Asp	Tyr	Gly	Arg	Tyr	Arg	Cys	Glu	Val	Ile	Asp	140	145	150
Gly	Leu	Glu	Asp	Glu	Ser	Gly	Leu	Val	Glu	Leu	Glu	Leu	Arg	Gly	155	160	165
Val	Val	Phe	Pro	Tyr	Gln	Ser	Pro	Asn	Gly	Arg	Tyr	Gln	Phe	Asn	170	175	180
Phe	His	Glu	Gly	Gln	Gln	Val	Cys	Ala	Glu	Gln	Ala	Ala	Val	Val	185	190	195
Ala	Ser	Phe	Glu	Gln	Leu	Phe	Arg	Ala	Trp	Glu	Glu	Gly	Leu	Asp	200	205	210
Trp	Cys	Asn	Ala	Gly	Trp	Leu	Gln	Asp	Ala	Thr	Val	Gln	Tyr	Pro	215	220	225
Ile	Met	Leu	Pro	Arg	Gln	Pro	Cys	Gly	Gly	Pro	Gly	Leu	Ala	Pro	230	235	240
Gly	Val	Arg	Ser	Tyr	Gly	Pro	Arg	His	Arg	Arg	Leu	His	Arg	Tyr	245	250	255
Asp	Val	Phe	Cys	Phe	Ala	Thr	Ala	Leu	Lys	Gly	Arg	Val	Tyr	Tyr	260	265	270
Leu	Glu	His	Pro	Glu	Lys	Leu	Thr	Leu	Thr	Glu	Ala	Arg	Glu	Ala	275	280	285
Cys	Gln	Glu	Asp	Asp	Ala	Thr	Ile	Ala	Lys	Val	Gly	Gln	Leu	Phe	290	295	300
Ala	Ala	Trp	Lys	Phe	His	Gly	Leu	Asp	Arg	Cys	Asp	Ala	Gly	Trp	305	310	315
Leu	Ala	Asp	Gly	Ser	Val	Arg	Tyr	Pro	Val	Val	His	Pro	His	Pro	320	325	330

Asn Cys Gly Pro Pro Glu Pro Gly Val Arg Ser Phe Gly Phe Pro
335 340 345

Asp Pro Gln Ser Arg Leu Tyr Gly Val Tyr Cys Tyr Arg Gln His
350 355 360

<210> 214

<211> 18

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Oligonucleotide Probe

<400> 214

tgcttcgcta ctgccctc 18

<210> 215

<211> 18

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Oligonucleotide Probe

<400> 215

ttcccttggtg ggttgag 18

<210> 216

<211> 18

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Oligonucleotide Probe

<400> 216

agggctggaa gccagttc 18

<210> 217

<211> 18

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Oligonucleotide Probe

<400> 217

agccagtggag gaaatgcg 18

<210> 218

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Oligonucleotide Probe

<400> 218

tgtccaaagt acacacacct gagg 24

<210> 219
 <211> 45
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic Oligonucleotide Probe

<400> 219
 gatgccacga tcgccaaggt gggacagctc tttgccgcct ggaag 45

<210> 220
 <211> 1503
 <212> DNA
 <213> Homo Sapien

<400> 220
 ggagagcgga gcgaagctgg ataacagggg accgatgatg tggcgaccat 50
 cagttctgct gcttctgttg ctactgaggc acggggccca ggggaagcca 100
 tccccagacg caggccctca tggccagggg aggggtgcacc aggcggcccc 150
 cctgagcgac gctccccatg atgacgcca cggaacttc cagtacgacc 200
 atgaggcttt cctgggacgg gaagtggcca aggaattcga ccaactcacc 250
 ccagaggaaa gccaggcccc tctggggcgg atcgtggacc gcatggaccg 300
 cgcgggggac ggcgacggct ggggtgtcgt ggccgagctt cgcgcgtgga 350
 tcgcgcacac gcagcagcgg cacatacggg actcggtgag cgcggcctgg 400
 gacacgtacg acacggaccg cgacgggcgt gtgggttggg aggagctgcg 450
 caacgccacc tatggccact acgcgcccg tgaagaattt catgacgtgg 500
 aggatgcaga gacctacaaa aagatgctgg ctcgggacga gcggcgtttc 550
 cgggtggccg accaggatgg ggactcgatg gccactcgag aggagctgac 600
 agccttcctg cccccgagg agttccctca catgcgggac atcgtgattg 650
 ctgaaaccct ggaggacctg gacagaaaca aagatggcta tgtccagggtg 700
 gaggagtaca tcgcggatct gtactcagcc gagcctgggg aggaggagcc 750
 ggcgtgggtg cagacggaga ggcagcagtt ccgggacttc cgggatctga 800
 acaaggatgg gcacctggat gggagtgagg tgggccactg ggtgctgccc 850
 cctgccacgg accagcccct ggtggaagcc aaccacctgc tgcacgagag 900
 cgacacggac aaggatgggc ggctgagcaa agcggaaatc ctgggtaatt 950
 ggaacatgtt tgtgggcagt caggccacca actatggcga ggacctgacc 1000

cggcaccacg atgagctgtg agcaccgcgc acctgccaca gcctcagagg 1050
 cccgcacaat gaccggagga ggggccgctg tggctctggcc ccctccctgt 1100
 ccaggccccg caggaggcag atgcagtccc aggcatacctc ctgcccctgg 1150
 gctctcaggg accccctggg tcggcttctg tccctgtcac accccaacc 1200
 ccaggggagg gctgtcatag tcccagagga taagcaatac ctatttctga 1250
 ctgagtctcc cagcccagac ccaggggaccc ttggcccca gctcagctct 1300
 aagaaccgcc ccaaccctc cagctccaaa tctgagcctc caccacatag 1350
 actgaaactc ccctggcccc agccctctcc tgccctggcct ggccctgggac 1400
 acctcctctc tgccaggagg caataaaagc cagcgccggg accttgaaaa 1450
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 1500
 aaa 1503

<210> 221
 <211> 328
 <212> PRT
 <213> Homo Sapien

<400> 221
 Met Met Trp Arg Pro Ser Val Leu Leu Leu Leu Leu Leu Leu Arg
 1 5 10 15
 His Gly Ala Gln Gly Lys Pro Ser Pro Asp Ala Gly Pro His Gly
 20 25 30
 Gln Gly Arg Val His Gln Ala Ala Pro Leu Ser Asp Ala Pro His
 35 40 45
 Asp Asp Ala His Gly Asn Phe Gln Tyr Asp His Glu Ala Phe Leu
 50 55 60
 Gly Arg Glu Val Ala Lys Glu Phe Asp Gln Leu Thr Pro Glu Glu
 65 70 75
 Ser Gln Ala Arg Leu Gly Arg Ile Val Asp Arg Met Asp Arg Ala
 80 85 90
 Gly Asp Gly Asp Gly Trp Val Ser Leu Ala Glu Leu Arg Ala Trp
 95 100 105
 Ile Ala His Thr Gln Gln Arg His Ile Arg Asp Ser Val Ser Ala
 110 115 120
 Ala Trp Asp Thr Tyr Asp Thr Asp Arg Asp Gly Arg Val Gly Trp
 125 130 135
 Glu Glu Leu Arg Asn Ala Thr Tyr Gly His Tyr Ala Pro Gly Glu
 140 145 150
 Glu Phe His Asp Val Glu Asp Ala Glu Thr Tyr Lys Lys Met Leu

	155	160	165
Ala Arg Asp Glu	Arg Arg Phe Arg Val	Ala Asp Gln Asp Gly	Asp
	170	175	180
Ser Met Ala Thr	Arg Glu Glu Leu Thr	Ala Phe Leu His Pro	Glu
	185	190	195
Glu Phe Pro His	Met Arg Asp Ile Val	Ile Ala Glu Thr Leu	Glu
	200	205	210
Asp Leu Asp Arg	Asn Lys Asp Gly Tyr	Val Gln Val Glu Glu	Tyr
	215	220	225
Ile Ala Asp Leu	Tyr Ser Ala Glu Pro	Gly Glu Glu Glu Pro	Ala
	230	235	240
Trp Val Gln Thr	Glu Arg Gln Gln Phe	Arg Asp Phe Arg Asp	Leu
	245	250	255
Asn Lys Asp Gly	His Leu Asp Gly Ser	Glu Val Gly His Trp	Val
	260	265	270
Leu Pro Pro Ala	Gln Asp Gln Pro Leu	Val Glu Ala Asn His	Leu
	275	280	285
Leu His Glu Ser	Asp Thr Asp Lys Asp	Gly Arg Leu Ser Lys	Ala
	290	295	300
Glu Ile Leu Gly	Asn Trp Asn Met Phe	Val Gly Ser Gln Ala	Thr
	305	310	315
Asn Tyr Gly Glu	Asp Leu Thr Arg His	His Asp Glu Leu	
	320	325	

<210> 222

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Oligonucleotide Probe

<400> 222

cgcaggccct catggccagg 20

<210> 223

<211> 18

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Oligonucleotide Probe

<400> 223

gaaatcctgg gtaattgg 18

<210> 224

<211> 23

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Oligonucleotide Probe

<400> 224

gtgcgcggtg ctcacagctc atc 23

<210> 225

<211> 44

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Oligonucleotide Probe

<400> 225

ccccctgag cgacgtccc ccatgatgac gcccacggga actt 44

<210> 226

<211> 2403

<212> DNA

<213> Homo Sapien

<400> 226

ggggccttgc cttccgcact cgggcgcagc cgggtggatc tcgagcaggt 50

gcggagcccc gggcggcggg cgcgggtgcg agggatccct gacgcctctg 100

tccctgtttc tttgtcgctc ccagcctgtc tgtcgctgtt ttggcgcccc 150

cgcctccccg cgggtgcgggg ttgcacaccg atcctgggct tcgctcgatt 200

tgccgcccag ggcctccca gacctagagg ggcgctggcc tggagcagcg 250

ggtcgtctgt gtcctctctc ctctgcgccg cggcggggga tccgaagggt 300

gcggggctct gaggaggtag cgcgcggggc ctcccgcacc ctggccttgc 350

ccgcattctc cctctctccc aggtgtgagc agcctatcag tcaccatgtc 400

cgcagcctgg atcccggctc tcggcctcgg tgtgtgtctg ctgctgctgc 450

cggggcccg cggcagcgag ggagccgctc ccattgctat cacatgtttt 500

accagaggct tggacatcag gaaagagaaa gcagatgtcc tctgcccagg 550

gggctgccct cttgaggaat tctctgtgta tgggaacata gtatatgctt 600

ctgtatcgag catatgtggg gctgctgtcc acaggggagt aatcagcaac 650

tcagggggac ctgtacgagt ctatagccta cctggtcgag aaaactattc 700

ctcagtagat gccaatggca tccagtctca aatgctttct agatggctctg 750

cttctttcac agtaactaaa ggcaaaagta gtacacagga ggccacagga 800

caagcagtgt ccacagcaca tccaccaaca ggtaaacgac taaagaaaac 850

acccgagaag aaaactggca ataaagattg taaagcagac attgcatttc 900
 tgattgatgg aagctttaat attgggcagc gccgatttaa tttacagaag 950
 aattttgttg gaaaagtggc tctaattgttg ggaattggaa cagaaggacc 1000
 acatgtgggc cttgttcaag ccagtgaaca tcccaaaata gaattttact 1050
 tgaaaaactt tacatcagcc aaagatgttt tgtttgccat aaaggaagta 1100
 ggtttcagag ggggtaattc caatacagga aaagccttga agcatactgc 1150
 tcagaaattc ttcacggtag atgctggagt aagaaaaggg atccccaag 1200
 tgggtggtgg atttattgat gggtggcctt ctgatgacat cgaggaagca 1250
 ggcattgtgg ccagagagtt tgggtgtcaat gtatttatag tttctgtggc 1300
 caagcctatc cctgaagaac tggggatggg tcaggatgtc acatttgttg 1350
 acaaggctgt ctgtcggaat aatggcttct tctcttacca catgccaac 1400
 tggtttggca ccacaaaata cgtaaagcct ctggtacaga agctgtgcac 1450
 tcatgaacaa atgatgtgca gcaagacctg ttataactca gtgaacattg 1500
 cctttcta at tgatggctcc agcagtgttg gagatagcaa tttccgcctc 1550
 atgcttgaat ttgtttccaa catagccaag acttttgaaa tctcggacat 1600
 tggtgccaag atagctgctg tacagtttac ttatgatcag cgcacggagt 1650
 tcagtttcac tgactatagc accaaagaga atgtcctagc tgtcatcaga 1700
 aacatccgct atatgagtgg tggaacagct actggtgatg ccatttcctt 1750
 cactgttaga aatgtgtttg gccctataag ggagagcccc aacaagaact 1800
 tcctagtaat tgtcacagat gggcagtcct atgatgatgt ccaaggccct 1850
 gcagctgctg cacatgatgc aggaatcact atcttctctg ttggtgtggc 1900
 ttgggcacct ctggatgacc tgaaagatat ggcttctaaa ccgaaggagt 1950
 ctcacgcttt cttcacaaga gagttcacag gattagaacc aattgtttct 2000
 gatgtcatca gaggcatttg tagagatttc ttagaatccc agcaataatg 2050
 gtaacatttt gacaactgaa agaaaaagta caaggggatc cagtgtgtaa 2100
 attgtattct cataatactg aaatgcttta gcatactaga atcagataca 2150
 aaactattaa gtatgtcaac agccatttag gcaaataagc actccttta 2200
 agccgctgcc ttctgggttac aatttacagt gtactttgtt aaaaacactg 2250
 ctgaggcttc ataatcatgg ctcttagaaa ctcaggaaaag aggagataat 2300
 gtggattaaa accttaagag ttctaaccat gcctactaaa tgtacagata 2350

tgcaaattcc atagctcaat aaaagaatct gataacttaga ccaaaaaaaaa 2400

aaa 2403

<210> 227

<211> 550

<212> PRT

<213> Homo Sapien

<400> 227

Met	Ser	Ala	Ala	Trp	Ile	Pro	Ala	Leu	Gly	Leu	Gly	Val	Cys	Leu
1				5					10					15

Leu	Leu	Leu	Pro	Gly	Pro	Ala	Gly	Ser	Glu	Gly	Ala	Ala	Pro	Ile
				20					25					30

Ala	Ile	Thr	Cys	Phe	Thr	Arg	Gly	Leu	Asp	Ile	Arg	Lys	Glu	Lys
				35					40					45

Ala	Asp	Val	Leu	Cys	Pro	Gly	Gly	Cys	Pro	Leu	Glu	Glu	Phe	Ser
				50					55					60

Val	Tyr	Gly	Asn	Ile	Val	Tyr	Ala	Ser	Val	Ser	Ser	Ile	Cys	Gly
				65					70					75

Ala	Ala	Val	His	Arg	Gly	Val	Ile	Ser	Asn	Ser	Gly	Gly	Pro	Val
				80					85					90

Arg	Val	Tyr	Ser	Leu	Pro	Gly	Arg	Glu	Asn	Tyr	Ser	Ser	Val	Asp
				95					100					105

Ala	Asn	Gly	Ile	Gln	Ser	Gln	Met	Leu	Ser	Arg	Trp	Ser	Ala	Ser
				110					115					120

Phe	Thr	Val	Thr	Lys	Gly	Lys	Ser	Ser	Thr	Gln	Glu	Ala	Thr	Gly
				125					130					135

Gln	Ala	Val	Ser	Thr	Ala	His	Pro	Pro	Thr	Gly	Lys	Arg	Leu	Lys
				140					145					150

Lys	Thr	Pro	Glu	Lys	Lys	Thr	Gly	Asn	Lys	Asp	Cys	Lys	Ala	Asp
				155					160					165

Ile	Ala	Phe	Leu	Ile	Asp	Gly	Ser	Phe	Asn	Ile	Gly	Gln	Arg	Arg
				170					175					180

Phe	Asn	Leu	Gln	Lys	Asn	Phe	Val	Gly	Lys	Val	Ala	Leu	Met	Leu
				185					190					195

Gly	Ile	Gly	Thr	Glu	Gly	Pro	His	Val	Gly	Leu	Val	Gln	Ala	Ser
				200					205					210

Glu	His	Pro	Lys	Ile	Glu	Phe	Tyr	Leu	Lys	Asn	Phe	Thr	Ser	Ala
				215					220					225

Lys	Asp	Val	Leu	Phe	Ala	Ile	Lys	Glu	Val	Gly	Phe	Arg	Gly	Gly
				230					235					240

Asn	Ser	Asn	Thr	Gly	Lys	Ala	Leu	Lys	His	Thr	Ala	Gln	Lys	Phe
				245					250					255

Phe Thr Val Asp	Ala Gly Val Arg Lys	Gly Ile Pro Lys Val Val	260	265	270
Val Val Phe Ile	Asp Gly Trp Pro Ser	Asp Asp Ile Glu Glu Ala	275	280	285
Gly Ile Val Ala	Arg Glu Phe Gly Val	Asn Val Phe Ile Val Ser	290	295	300
Val Ala Lys Pro	Ile Pro Glu Glu Leu	Gly Met Val Gln Asp Val	305	310	315
Thr Phe Val Asp	Lys Ala Val Cys Arg	Asn Asn Gly Phe Phe Ser	320	325	330
Tyr His Met Pro	Asn Trp Phe Gly Thr	Thr Lys Tyr Val Lys Pro	335	340	345
Leu Val Gln Lys	Leu Cys Thr His Glu	Gln Met Met Cys Ser Lys	350	355	360
Thr Cys Tyr Asn	Ser Val Asn Ile Ala	Phe Leu Ile Asp Gly Ser	365	370	375
Ser Ser Val Gly	Asp Ser Asn Phe Arg	Leu Met Leu Glu Phe Val	380	385	390
Ser Asn Ile Ala	Lys Thr Phe Glu Ile	Ser Asp Ile Gly Ala Lys	395	400	405
Ile Ala Ala Val	Gln Phe Thr Tyr Asp	Gln Arg Thr Glu Phe Ser	410	415	420
Phe Thr Asp Tyr	Ser Thr Lys Glu Asn	Val Leu Ala Val Ile Arg	425	430	435
Asn Ile Arg Tyr	Met Ser Gly Gly Thr	Ala Thr Gly Asp Ala Ile	440	445	450
Ser Phe Thr Val	Arg Asn Val Phe Gly	Pro Ile Arg Glu Ser Pro	455	460	465
Asn Lys Asn Phe	Leu Val Ile Val Thr	Asp Gly Gln Ser Tyr Asp	470	475	480
Asp Val Gln Gly	Pro Ala Ala Ala Ala	His Asp Ala Gly Ile Thr	485	490	495
Ile Phe Ser Val	Gly Val Ala Trp Ala	Pro Leu Asp Asp Leu Lys	500	505	510
Asp Met Ala Ser	Lys Pro Lys Glu Ser	His Ala Phe Phe Thr Arg	515	520	525
Glu Phe Thr Gly	Leu Glu Pro Ile Val	Ser Asp Val Ile Arg Gly	530	535	540
Ile Cys Arg Asp	Phe Leu Glu Ser Gln Gln				

<210> 228
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic Oligonucleotide Probe

<400> 228
tggtctcgca caccgatc 18

<210> 229
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic Oligonucleotide Probe

<400> 229
ctgctgtcca caggggag 18

<210> 230
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic Oligonucleotide Probe

<400> 230
ccttgaagca tactgctc 18

<210> 231
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic Oligonucleotide Probe

<400> 231
gagatagcaa tttccgcc 18

<210> 232
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic Oligonucleotide Probe

<400> 232
ttcctcaaga gggcagcc 18

<210> 233
<211> 24

<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic Oligonucleotide Probe

<400> 233
cttggcacca atgtccgaga ttcc 24

<210> 234
<211> 45
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic Oligonucleotide Probe

<400> 234
gctctgagga aggtgacgcg cggggcctcc gaacccttgg ccttg 45

<210> 235
<211> 2586
<212> DNA
<213> Homo Sapien

<400> 235
cgccgcgctc ccgcacccgc ggcccgccca ccgcgccgct cccgcatctg 50
caccgcgagc ccggcggcct cccggcggga gcgagcagat ccagtccggc 100
ccgcagcgca actcgggtcca gtcggggcgg cggctgcggg cgcagagcgg 150
agatgcagcg gcttggggcc accctgctgt gcctgctgct ggcggcggcg 200
gtccccacgg cccccgcgcc cgctccgacg gcgacctcgg ctccagtcaa 250
gccccggcccc gctctcagct acccgcagga ggaggccacc ctcaatgaga 300
tgttccgcga gggtgaggaa ctgatggagg acacgcagca caaattgcgc 350
agcgcggttg aagagatgga ggcagaagaa gctgctgcta aagcatcatc 400
agaagtgaac ctggcaaact tacctcccag ctatcacaat gagaccaaca 450
cagacacgaa gggttgaaat aataccatcc atgtgcaccg agaaattcac 500
aagataacca acaaccagac tggacaaatg gtcttttcag agacagttat 550
cacatctgtg ggagacgaag aaggcagaag gagccacgag tgcacatcgc 600
acgaggactg tgggcccagc atgtactgcc agtttgccag cttccagtac 650
acctgccagc catgccgggg ccagaggatg ctctgcaccc gggacagtga 700
gtgctgtgga gaccagctgt gtgtctgggg tcaactgcacc aaaatggcca 750
ccagggggcag caatgggacc atctgtgaca accagagggga ctgccagccg 800
gggctgtgct gtgccttcca gagaggcctg ctgttccttg tgtgcacacc 850

cctgcccgtg gagggcgagc tttgccatga ccccgccagc eggcttctgg 900
acctcatcac ctgggagcta gagcctgatg gagccttgga ccgatgccct 950
tgtgccagtg gcctcctctg ccagccccac agccacagcc tgggtgatgt 1000
gtgcaagccg accttcgtgg ggagccgtga ccaagatggg gagatcctgc 1050
tgcccagaga ggtcccgat gagtatgaag ttggcagctt catggaggag 1100
gtgcgccagg agctggagga cctggagagg agcctgactg aagagatggc 1150
gctgggggag cctgcggtg cgcgcgtgc actgctggga ggggaagaga 1200
tttagatctg gaccaggctg tgggtagatg tgcaatagaa atagctaatt 1250
tatttcccca ggtgtgtgct ttaggcgtgg gctgaccagg cttcttccta 1300
catcttcttc ccagtaagtt tcccctctgg cttgacagca tgagggtgtt 1350
tgcatttgtt cagctcccc aggctgttct ccaggcttca cagtctgggtg 1400
cttgggagag tcaggcaggg ttaaactgca ggagcagttt gccaccctg 1450
tccagattat tggctgcttt gcctctacca gttggcagac agccgtttgt 1500
tctacatggc tttgataatt gtttgagggg aggagatgga aacaatgtgg 1550
agtctccctc tgattggttt tggggaaatg tggagaagag tgccctgctt 1600
tgcaaacatc aacctggcaa aaatgcaaca aatgaatttt ccacgcagtt 1650
ctttccatgg gcataggtaa gctgtgcctt cagctgttgc agatgaaatg 1700
ttctgttcac cctgcattac atgtgtttat tcatccagca gtgttgctca 1750
gctcctacct ctgtgccagg gcagcatttt catatccaag atcaattccc 1800
tctctcagca cagcctgggg agggggtcat tgttctcctc gtccatcagg 1850
gatctcagag gctcagagac tgcaagctgc ttgcccagt cacacagcta 1900
gtgaagacca gagcagtttc atctggttgt gactctaagc tcagtgtctt 1950
ctccactacc ccacaccagc cttggtgcca ccaaaagtgc tccccaaaag 2000
gaaggagaat gggatttttc ttgaggcatg cacatctgga attaaggtca 2050
aactaattct cacatccctc taaaagtaaa ctactgttag gaacagcagt 2100
gttctcacag tgtggggcag ccgtccttct aatgaagaca atgatattga 2150
cactgtccct ctttggcagt tgcattagta actttgaaag gtatatgact 2200
gagcgtagca tacagggttaa cctgcagaaa cagtacttag gtaattgtag 2250
ggcgaggatt ataaatgaaa tttgcaaaat cacttagcag caactgaaga 2300
caattatcaa ccacgtggag aaaatcaaac cgagcagggc tgtgtgaaac 2350

atggttgtaa tatgcgactg cgaacactga actctacgcc actccacaaa 2400
 tgatgttttc aggtgtcatg gactgttgcc accatgtatt catccagagt 2450
 tcttaaagtt taaagttgca catgattgta taagcatgct ttctttgagt 2500
 tttaaattat gtataaacat aagttgcatt tagaaatcaa gcataaatca 2550
 cttcaactgc aaaaaaaaaa aaaaaaaaaa aaaaaa 2586

<210> 236

<211> 350

<212> PRT

<213> Homo Sapien

<400> 236

Met	Gln	Arg	Leu	Gly	Ala	Thr	Leu	Leu	Cys	Leu	Leu	Leu	Ala	Ala	1	5	10	15
Ala	Val	Pro	Thr	Ala	Pro	Ala	Pro	Ala	Pro	Thr	Ala	Thr	Ser	Ala	20	25	30	
Pro	Val	Lys	Pro	Gly	Pro	Ala	Leu	Ser	Tyr	Pro	Gln	Glu	Glu	Ala	35	40	45	
Thr	Leu	Asn	Glu	Met	Phe	Arg	Glu	Val	Glu	Glu	Leu	Met	Glu	Asp	50	55	60	
Thr	Gln	His	Lys	Leu	Arg	Ser	Ala	Val	Glu	Glu	Met	Glu	Ala	Glu	65	70	75	
Glu	Ala	Ala	Ala	Lys	Ala	Ser	Ser	Glu	Val	Asn	Leu	Ala	Asn	Leu	80	85	90	
Pro	Pro	Ser	Tyr	His	Asn	Glu	Thr	Asn	Thr	Asp	Thr	Lys	Val	Gly	95	100	105	
Asn	Asn	Thr	Ile	His	Val	His	Arg	Glu	Ile	His	Lys	Ile	Thr	Asn	110	115	120	
Asn	Gln	Thr	Gly	Gln	Met	Val	Phe	Ser	Glu	Thr	Val	Ile	Thr	Ser	125	130	135	
Val	Gly	Asp	Glu	Glu	Gly	Arg	Arg	Ser	His	Glu	Cys	Ile	Ile	Asp	140	145	150	
Glu	Asp	Cys	Gly	Pro	Ser	Met	Tyr	Cys	Gln	Phe	Ala	Ser	Phe	Gln	155	160	165	
Tyr	Thr	Cys	Gln	Pro	Cys	Arg	Gly	Gln	Arg	Met	Leu	Cys	Thr	Arg	170	175	180	
Asp	Ser	Glu	Cys	Cys	Gly	Asp	Gln	Leu	Cys	Val	Trp	Gly	His	Cys	185	190	195	
Thr	Lys	Met	Ala	Thr	Arg	Gly	Ser	Asn	Gly	Thr	Ile	Cys	Asp	Asn	200	205	210	

Gln	Arg	Asp	Cys	Gln	Pro	Gly	Leu	Cys	Cys	Ala	Phe	Gln	Arg	Gly	
				215					220					225	
Leu	Leu	Phe	Pro	Val	Cys	Thr	Pro	Leu	Pro	Val	Glu	Gly	Glu	Leu	
				230					235					240	
Cys	His	Asp	Pro	Ala	Ser	Arg	Leu	Leu	Asp	Leu	Ile	Thr	Trp	Glu	
				245					250					255	
Leu	Glu	Pro	Asp	Gly	Ala	Leu	Asp	Arg	Cys	Pro	Cys	Ala	Ser	Gly	
				260					265					270	
Leu	Leu	Cys	Gln	Pro	His	Ser	His	Ser	Leu	Val	Tyr	Val	Cys	Lys	
				275					280					285	
Pro	Thr	Phe	Val	Gly	Ser	Arg	Asp	Gln	Asp	Gly	Glu	Ile	Leu	Leu	
				290					295					300	
Pro	Arg	Glu	Val	Pro	Asp	Glu	Tyr	Glu	Val	Gly	Ser	Phe	Met	Glu	
				305					310					315	
Glu	Val	Arg	Gln	Glu	Leu	Glu	Asp	Leu	Glu	Arg	Ser	Leu	Thr	Glu	
				320					325					330	
Glu	Met	Ala	Leu	Gly	Glu	Pro	Ala	Ala	Ala	Ala	Ala	Ala	Leu	Leu	
				335					340					345	
Gly	Gly	Glu	Glu	Ile											
				350											

<210> 237
 <211> 17
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 237
 ggagctgcac cccttgc 17

<210> 238
 <211> 49
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic Oligonucleotide Probe

<400> 238
 ggaggactgt gccaccatga gagactcttc aaaccaagg caaaattgg 49

<210> 239
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic Oligonucleotide Probe

<400> 239
 gcagagcgga gatgcagcgg cttg 24

<210> 240
 <211> 18
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic Oligonucleotide Probe

<400> 240
 ttggcagctt catggagg 18

<210> 241
 <211> 18
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic Oligonucleotide Probe

<400> 241
 cctgggcaaa aatgcaac 18

<210> 242
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic Oligonucleotide Probe

<400> 242
 ctccagctcc tggcgcacct cctc 24

<210> 243
 <211> 45
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic Oligonucleotide Probe

<400> 243
 ggctctcagc taccgcgag gagcgaggcc accctcaatg agatg 45

<210> 244
 <211> 3679
 <212> DNA
 <213> Homo Sapien

<400> 244
 aaggaggctg ggaggaaaga ggtaagaaag gttagagaac ctacctcaca 50
 tctctctggg ctcagaagga ctctgaagat aacaataatt tcagcccatc 100
 cactctcctt cctcccaaa cacacatgtg catgtacaca cacacatata 150

cacacataca ccttcctctc cttcactgaa gactcacagt cactcactct 200
gtgagcaggt catagaaaag gacactaaag ccttaaggac aggctggcc 250
attacctctg cagctccttt ggcttggtga gtcaaaaaac atgggagggg 300
ccaggcacgg tgactcacac ctgtaatccc agcatttttg gagaccgagg 350
tgagcagatc acttgaggtc aggagttcga gaccagcctg gccaacatgg 400
agaaaccccc atctctacta aaaatacaaa aattagccag gagtgggtggc 450
aggcgcctgt aatcccagct actcagggtg ctgagccagg agaatcgctt 500
gaatccagga ggcgaggat gcagtcagct gagtgcaccg ctgcactcca 550
gcctgggtga cagaatgaga ctctgtctca aacaaacaaa cacgggagga 600
ggggtagata ctgcttctct gcaacctcct taactctgca tcctcttctt 650
ccagggtgct cctgatggg gcctggcaat gactgagcag gccagcccc 700
agaggacaag gaagagaagg catattgagg agggcaagaa gtgacgccc 750
gtgtagaatg actgccctgg gaggggtggt ccttgggccc tggcaggggt 800
gctgaccctt accctgcaaa acacaaagag caggactcca gactctcctt 850
gtgaatggtc cctgccctg cagctccacc atgaggcttc tcgtggcccc 900
actcttgcta gcttgggtgg ctggtgccac tgccactgtg cccgtggtac 950
cctggcatgt tcctgcccc cctcagtgtg cctgccagat cggccctgg 1000
tatacgcccc gctcgctcta ccgcgaggct accactgtgg actgcaatga 1050
cctattcctg acggcagtc ccccggcact ccccgcaggc acacagacc 1100
tgctcctgca gagcaacagc attgtccgtg tggaccagag tgagctgggc 1150
tacctggcca atctcacaga gctggacctg tcccagaaca gcttttcgga 1200
tgcccagagc tgtgatttcc atgcctgcc ccagctgctg agcctgcacc 1250
tagaggagaa ccagctgacc cggctggagg accacagctt tgcagggctg 1300
gccagcctac aggaactcta tctcaaccac aaccagctct accgcatcgc 1350
ccccagggcc ttttctggcc tcagcaactt gctgcggctg cacctcaact 1400
ccaacctcct gagggccatt gacagccgct gggttgaaat gctgccaac 1450
ttggagatac tcatgattgg cggcaacaag gtagatgcca tcctggacat 1500
gaacttccgg cccctggcca acctgcgtag cctggtgcta gcaggcatga 1550
acctgcggga gatctccgac tatgccctgg aggggctgca aagcctggag 1600
agcctctcct tctatgacaa ccagctggcc cgggtgcccc ggcgggcact 1650

ggaacaggtg cccggggtca agttcctaga cctcaacaag aaccgctcc 1700
agcgggtagg gccgggggac tttgccaaca tgctgcacct taaggagctg 1750
ggactgaaca acatggagga gctgggtctcc atcgacaagt ttgccctggg 1800
gaacctcccc gagctgacca agctggacat caccaataac ccacggctgt 1850
ccttcatcca cccccgcgcc ttccaccacc tgccccagat ggagaccctc 1900
atgctcaaca acaacgctct cagtgccttg caccagcaga cggaggagtc 1950
cctgcccac ctgcaggagg taggtctcca cggcaacccc atccgctgtg 2000
actgtgtcat ccgctggggc aatgccacgg gcacccgtgt ccgcttcac 2050
gagccgcaat ccacctgtg tgcggagcct ccggacctcc agcgctccc 2100
ggtcctgtgag gtgcccttc gggagatgac ggaccactgt ttgccctca 2150
tctccccacg aagcttcccc ccaagcctcc aggtagccag tggagagagc 2200
atggtgctgc attgccgggc actggccgaa cccgaacccg agatctactg 2250
ggtcactcca gctgggcttc gactgacacc tgcccatgca ggcaggaggt 2300
accgggtgta ccccgagggg accctggagc tgcggagggt gacagcagaa 2350
gaggcagggc tatacacctg tgtggcccag aacctggtgg gggctgacac 2400
taagacggtt agtgtggtg tgggccgtgc tctcctccag ccaggcaggg 2450
acgaaggaca ggggctggag ctccgggtgc aggagaccca cccctatcac 2500
atcctgctat cttgggtcac cccacccaac acagtgtcca ccaacctcac 2550
ctggtccagt gcctcctccc tccggggcca gggggccaca gctctggccc 2600
gcctgcctcg gggaaccac agctacaaca ttaccgcct ccttcaggcc 2650
acggagtact gggcctgcct gcaagtggcc tttgctgatg cccacacca 2700
gttggcttgt gtatgggcca ggaccaaaga ggccacttct tgccacagag 2750
ccttagggga tcgtcctggg ctcatgcca tcctggctct cgctgtcctt 2800
ctcctggcag ctgggctagc ggcccacett ggcacaggcc aaccaggaa 2850
gggtgtgggt gggaggcggc ctctccctcc agcctgggct ttctggggct 2900
ggagtgcctt ttctgtccgg gttgtgtctg ctcccctcgt cctgcctgg 2950
aatccaggga ggaagctgcc cagatcctca gaaggggaga cactgttgcc 3000
accattgtct caaaattctt gaagctcagc ctgttctcag cagtagagaa 3050
atcactagga ctacttttta ccaaagaga agcagtctgg gccagatgcc 3100
ctgccaggaa agggacatgg acccacgtgc ttgaggcctg gcagctgggc 3150

caagacagat ggggctttgt ggccctgggg gtgcttctgc agccttgaaa 3200
 aagttgccct tacctcctag ggtcacctct gctgccattc tgaggaacat 3250
 ctccaaggaa caggaggagac tttggctaga gcctcctgcc tccccatctt 3300
 ctctctgccc agaggctcct gggcctggct tggtgtgtccc ctacctgtgt 3350
 ccccgggctg cacccttcc tcttctcttt ctctgtacag tctcagttgc 3400
 ttgctcttgt gcctcctggg caagggtga aggaggccac tccatctcac 3450
 ctcggggggc tgccctcaat gtgggagtga cccagccag atctgaagga 3500
 catttgggag agggatgccc aggaacgcct catctcagca gcctgggctc 3550
 ggcattccga agctgacttt ctataggcaa ttttgtacct ttgtggagaa 3600
 atgtgtcacc tcccccaacc cgattcactc ttttctcctg ttttgtaaaa 3650
 aataaaaata aataataaca ataaaaaaaa 3679

<210> 245
 <211> 713
 <212> PRT
 <213> Homo Sapien

<400> 245
 Met Arg Leu Leu Val Ala Pro Leu Leu Leu Ala Trp Val Ala Gly
 1 5 10 15
 Ala Thr Ala Thr Val Pro Val Val Pro Trp His Val Pro Cys Pro
 20 25 30
 Pro Gln Cys Ala Cys Gln Ile Arg Pro Trp Tyr Thr Pro Arg Ser
 35 40 45
 Ser Tyr Arg Glu Ala Thr Thr Val Asp Cys Asn Asp Leu Phe Leu
 50 55 60
 Thr Ala Val Pro Pro Ala Leu Pro Ala Gly Thr Gln Thr Leu Leu
 65 70 75
 Leu Gln Ser Asn Ser Ile Val Arg Val Asp Gln Ser Glu Leu Gly
 80 85 90
 Tyr Leu Ala Asn Leu Thr Glu Leu Asp Leu Ser Gln Asn Ser Phe
 95 100 105
 Ser Asp Ala Arg Asp Cys Asp Phe His Ala Leu Pro Gln Leu Leu
 110 115 120
 Ser Leu His Leu Glu Glu Asn Gln Leu Thr Arg Leu Glu Asp His
 125 130 135
 Ser Phe Ala Gly Leu Ala Ser Leu Gln Glu Leu Tyr Leu Asn His
 140 145 150
 Asn Gln Leu Tyr Arg Ile Ala Pro Arg Ala Phe Ser Gly Leu Ser

155					160					165				
Asn	Leu	Leu	Arg	Leu	His	Leu	Asn	Ser	Asn	Leu	Leu	Arg	Ala	Ile
				170					175					180
Asp	Ser	Arg	Trp	Phe	Glu	Met	Leu	Pro	Asn	Leu	Glu	Ile	Leu	Met
				185					190					195
Ile	Gly	Gly	Asn	Lys	Val	Asp	Ala	Ile	Leu	Asp	Met	Asn	Phe	Arg
				200					205					210
Pro	Leu	Ala	Asn	Leu	Arg	Ser	Leu	Val	Leu	Ala	Gly	Met	Asn	Leu
				215					220					225
Arg	Glu	Ile	Ser	Asp	Tyr	Ala	Leu	Glu	Gly	Leu	Gln	Ser	Leu	Glu
				230					235					240
Ser	Leu	Ser	Phe	Tyr	Asp	Asn	Gln	Leu	Ala	Arg	Val	Pro	Arg	Arg
				245					250					255
Ala	Leu	Glu	Gln	Val	Pro	Gly	Leu	Lys	Phe	Leu	Asp	Leu	Asn	Lys
				260					265					270
Asn	Pro	Leu	Gln	Arg	Val	Gly	Pro	Gly	Asp	Phe	Ala	Asn	Met	Leu
				275					280					285
His	Leu	Lys	Glu	Leu	Gly	Leu	Asn	Asn	Met	Glu	Glu	Leu	Val	Ser
				290					295					300
Ile	Asp	Lys	Phe	Ala	Leu	Val	Asn	Leu	Pro	Glu	Leu	Thr	Lys	Leu
				305					310					315
Asp	Ile	Thr	Asn	Asn	Pro	Arg	Leu	Ser	Phe	Ile	His	Pro	Arg	Ala
				320					325					330
Phe	His	His	Leu	Pro	Gln	Met	Glu	Thr	Leu	Met	Leu	Asn	Asn	Asn
				335					340					345
Ala	Leu	Ser	Ala	Leu	His	Gln	Gln	Thr	Val	Glu	Ser	Leu	Pro	Asn
				350					355					360
Leu	Gln	Glu	Val	Gly	Leu	His	Gly	Asn	Pro	Ile	Arg	Cys	Asp	Cys
				365					370					375
Val	Ile	Arg	Trp	Ala	Asn	Ala	Thr	Gly	Thr	Arg	Val	Arg	Phe	Ile
				380					385					390
Glu	Pro	Gln	Ser	Thr	Leu	Cys	Ala	Glu	Pro	Pro	Asp	Leu	Gln	Arg
				395					400					405
Leu	Pro	Val	Arg	Glu	Val	Pro	Phe	Arg	Glu	Met	Thr	Asp	His	Cys
				410					415					420
Leu	Pro	Leu	Ile	Ser	Pro	Arg	Ser	Phe	Pro	Pro	Ser	Leu	Gln	Val
				425					430					435
Ala	Ser	Gly	Glu	Ser	Met	Val	Leu	His	Cys	Arg	Ala	Leu	Ala	Glu
				440					445					450

Pro	Glu	Pro	Glu	Ile	Tyr	Trp	Val	Thr	Pro	Ala	Gly	Leu	Arg	Leu		455	460	465
Thr	Pro	Ala	His	Ala	Gly	Arg	Arg	Tyr	Arg	Val	Tyr	Pro	Glu	Gly		470	475	480
Thr	Leu	Glu	Leu	Arg	Arg	Val	Thr	Ala	Glu	Glu	Ala	Gly	Leu	Tyr		485	490	495
Thr	Cys	Val	Ala	Gln	Asn	Leu	Val	Gly	Ala	Asp	Thr	Lys	Thr	Val		500	505	510
Ser	Val	Val	Val	Gly	Arg	Ala	Leu	Leu	Gln	Pro	Gly	Arg	Asp	Glu		515	520	525
Gly	Gln	Gly	Leu	Glu	Leu	Arg	Val	Gln	Glu	Thr	His	Pro	Tyr	His		530	535	540
Ile	Leu	Leu	Ser	Trp	Val	Thr	Pro	Pro	Asn	Thr	Val	Ser	Thr	Asn		545	550	555
Leu	Thr	Trp	Ser	Ser	Ala	Ser	Ser	Leu	Arg	Gly	Gln	Gly	Ala	Thr		560	565	570
Ala	Leu	Ala	Arg	Leu	Pro	Arg	Gly	Thr	His	Ser	Tyr	Asn	Ile	Thr		575	580	585
Arg	Leu	Leu	Gln	Ala	Thr	Glu	Tyr	Trp	Ala	Cys	Leu	Gln	Val	Ala		590	595	600
Phe	Ala	Asp	Ala	His	Thr	Gln	Leu	Ala	Cys	Val	Trp	Ala	Arg	Thr		605	610	615
Lys	Glu	Ala	Thr	Ser	Cys	His	Arg	Ala	Leu	Gly	Asp	Arg	Pro	Gly		620	625	630
Leu	Ile	Ala	Ile	Leu	Ala	Leu	Ala	Val	Leu	Leu	Leu	Ala	Ala	Gly		635	640	645
Leu	Ala	Ala	His	Leu	Gly	Thr	Gly	Gln	Pro	Arg	Lys	Gly	Val	Gly		650	655	660
Gly	Arg	Arg	Pro	Leu	Pro	Pro	Ala	Trp	Ala	Phe	Trp	Gly	Trp	Ser		665	670	675
Ala	Pro	Ser	Val	Arg	Val	Val	Ser	Ala	Pro	Leu	Val	Leu	Pro	Trp		680	685	690
Asn	Pro	Gly	Arg	Lys	Leu	Pro	Arg	Ser	Ser	Glu	Gly	Glu	Thr	Leu		695	700	705
Leu	Pro	Pro	Leu	Ser	Gln	Asn	Ser									710		

<210> 246

<211> 22

<212> DNA

<213> Artificial Sequence

<220>
 <223> Synthetic Oligonucleotide Probe

 <400> 246
 aacaaggtaa gatgcatcc tg 22

 <210> 247
 <211> 24
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic Oligonucleotide Probe

 <400> 247
 aaacttgatcg atggagacca gctc 24

 <210> 248
 <211> 45
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic Oligonucleotide Probe

 <400> 248
 aggggctgca aagcctggag agcctctcct tctatgacaa ccagc 45

 <210> 249
 <211> 3401
 <212> DNA
 <213> Homo Sapien

 <400> 249
 gcaagccaag gcgctgtttg agaagggtgaa gaagttccgg acccatgtgg 50
 aggaggggga cattgtgtac cgcctctaca tgcggcagac catcatcaag 100
 gtgatcaagt tcatcctcat catctgctac accgtctact acgtgcacaa 150
 catcaagttc gacgtggact gcaccgtgga cattgagagc ctgacgggct 200
 accgcaccta ccgctgtgcc caccctctgg ccacactctt caagatcctg 250
 gcgtccttct acatcagcct agtcatcttc tacggcctca tctgcatgta 300
 cacactgtgg tggatgctac ggcgtccct caagaagtac tcgtttgagt 350
 cgatccgtga ggagagcagc tacagcgaca tccccgacgt caagaacgac 400
 ttgccttca tgctgcacct cattgaccaa tacgacccgc tctactccaa 450
 gcgcttcgcc gtcttcctgt cggaggtgag tgagaacaag ctgcggcagc 500
 tgaacctcaa caacgagtgg acgctggaca agctccggca gcggctcacc 550
 aagaacgcgc aggacaagct ggagctgcac ctgttcatgc tcagtggcat 600
 ccctgacact gtgtttgacc tgggtggagct ggaggtcctc aagctggagc 650

tgatccccga cgtgaccatc ccgcccagca ttgcccagct cacgggcctc 700
 aaggagctgt ggctctacca cacagcggcc aagattgaag cgcttgcgct 750
 ggccttcctg cgcgagaacc tgcgggcgct gcacatcaag ttcaccgaca 800
 tcaaggagat cccgctgtgg atctatagcc tgaagacact ggaggagctg 850
 cacctgacgg gcaacctgag cgcgggagaac aaccgctaca tcgtcatcga 900
 cgggctgcgg gagctcaaac gcctcaagggt gctgcggctc aagagcaacc 950
 taagcaagct gccacaggtg gtcacagatg tgggctgca cctgcagaag 1000
 ctgtccatca acaatgaggg caccaagctc atcgtcctca acagcctcaa 1050
 gaagatggcg aacctgactg agctggagct gatccgctgc gacctggagc 1100
 gcatccccca ctccatcttc agcctccaca acctgcagga gattgacctc 1150
 aaggacaaca acctcaagac catcgaggag atcatcagct tccagcacct 1200
 gcaccgcctc acctgcctta agctgtggta caaccacatc gcctacatcc 1250
 ccatccagat cggcaacctc accaacctgg agcgcctcta cctgaaccgc 1300
 aacaagatcg agaagatccc caccagctc ttctactgcc gcaagctgcg 1350
 ctacctggac ctgagccaca acaacctgac cttcctccct gccgacatcg 1400
 gcctcctgca gaacctccag aacctagcca tcacggccaa ccggatcgag 1450
 acgtccctc cggagctctt ccagtgcggg aagctgcggg ccctgcacct 1500
 gggcaacaac gtgctgcagt cactgcctc cagggtgggc gagctgacca 1550
 acctgacgca gatcgagctg cggggcaacc ggctggagtg cctgcctgtg 1600
 gagctgggcg agtgcccact gctcaagcgc agcggcttgg tggaggagga 1650
 ggacctgttc aacacactgc caccgaggt gaaggagcgg ctgtggaggg 1700
 ctgacaagga gcaggcctga gcgaggccgg ccagcacag caagcagcag 1750
 gaccgctgcc cagtcctcag gcccgagggt gcaggcctag cttctcccag 1800
 aactcccga cagccaggac agcctcgcgg ctgggcagga gcctggggcc 1850
 gcttgtgagt caggccagag cgagaggaca gtatctgtgg ggctggcccc 1900
 tttctccct ctgagactca cgtccccag ggcaagtgt tgtggaggag 1950
 agcaagtctc aagagcgcag tatttggata atcagggtct cctccctgga 2000
 ggccagctct gcccagggg ctgagctgcc accagaggtc ctgggaccct 2050
 cactttagtt cttggtatct attttctcc atctcccacc tccttcatcc 2100
 agataactta tacattccca agaaagttca gccagatgg aaggtgttca 2150

```

gggaaagggtg ggctgccttt tccccttgtc cttatttagc gatgccgccg 2200
ggcatttaac acccacctgg acttcagcag agtgggccgg ggccaaccag 2250
ccatgggacg gtcaccacg agtgccgggc tgggctctgc ggtgcgggtcc 2300
acgggagagc aggcctccag ctggaaaggc caggcctgga gcttgccctct 2350
tcagtttttg tggcagtttt agttttttgt tttttttttt tttaatcaaa 2400
aaacaatttt ttttaaaaaa aagctttgaa aatggatggg ttgggtatta 2450
aaaagaaaaa aaaaacttaa aaaaaaaaaa acactaacgg ccagtgagtt 2500
ggagtctcag ggcagggtgg cagtttccct tgagcaaagc agccagacgt 2550
tgaactgtgt ttcctttccc tgggcgcagg gtgcagggtg tcttccggat 2600
ctgggtgtgac cttgggtccag gagttctatt tgttcctggg gagggagggt 2650
tttttgtttg ttttttgggt ttttttgggt tcttgttttc tttctcctcc 2700
atgtgtcttg gcaggcactc atttctgtgg ctgtcggcca gagggaatgt 2750
tctggagctg ccaaggaggg agggagactc ggttggttaa tccccggatg 2800
aacggtgctc cattcgcacc tcccctctc gtgcctgccc tgctctcca 2850
cgcacagtgt taaggagcca agaggagcca cttcgcccag actttgtttc 2900
cccacctcct gcggcatggg tgtgtccagt gccaccgctg gcctccgctg 2950
cttccatcag ccctgtcgcc acctgggtcct tcatgaagag cagacactta 3000
gaggctggtc gggaatgggg aggtcgcccc tgggagggca ggcgttggtt 3050
ccaagccggg tcccgctcct ggcgccctgga gtgcacacag ccagtcggc 3100
acctgggtggc tggaagccaa cctgcttttag atcactcggg tccccacctt 3150
agaaggggtcc ccgccttaga tcaatcacgt ggacactaag gcacgtttta 3200
gagtctcttg tcttaatgat tatgtccatc cgtctgtccg tccatttgtg 3250
ttttctgcgt cgtgtcattg gatataatcc tcagaaataa tgcacactag 3300
cctctgacaa ccatgaagca aaaatccggt acatgtgggt ctgaacttgt 3350
agactcgggt acagtatcaa ataaaatcta taacagaaaa aaaaaaaaaa 3400

```

a 3401

<210> 250

<211> 546

<212> PRT

<213> Homo Sapien

<400> 250

Met	Arg	Gln	Thr	Ile	Ile	Lys	Val	Ile	Lys	Phe	Ile	Leu	Ile	Ile		1	5	10	15
Cys	Tyr	Thr	Val	Tyr	Tyr	Val	His	Asn	Ile	Lys	Phe	Asp	Val	Asp		20	25	30	
Cys	Thr	Val	Asp	Ile	Glu	Ser	Leu	Thr	Gly	Tyr	Arg	Thr	Tyr	Arg		35	40	45	
Cys	Ala	His	Pro	Leu	Ala	Thr	Leu	Phe	Lys	Ile	Leu	Ala	Ser	Phe		50	55	60	
Tyr	Ile	Ser	Leu	Val	Ile	Phe	Tyr	Gly	Leu	Ile	Cys	Met	Tyr	Thr		65	70	75	
Leu	Trp	Trp	Met	Leu	Arg	Arg	Ser	Leu	Lys	Lys	Tyr	Ser	Phe	Glu		80	85	90	
Ser	Ile	Arg	Glu	Glu	Ser	Ser	Tyr	Ser	Asp	Ile	Pro	Asp	Val	Lys		95	100	105	
Asn	Asp	Phe	Ala	Phe	Met	Leu	His	Leu	Ile	Asp	Gln	Tyr	Asp	Pro		110	115	120	
Leu	Tyr	Ser	Lys	Arg	Phe	Ala	Val	Phe	Leu	Ser	Glu	Val	Ser	Glu		125	130	135	
Asn	Lys	Leu	Arg	Gln	Leu	Asn	Leu	Asn	Asn	Glu	Trp	Thr	Leu	Asp		140	145	150	
Lys	Leu	Arg	Gln	Arg	Leu	Thr	Lys	Asn	Ala	Gln	Asp	Lys	Leu	Glu		155	160	165	
Leu	His	Leu	Phe	Met	Leu	Ser	Gly	Ile	Pro	Asp	Thr	Val	Phe	Asp		170	175	180	
Leu	Val	Glu	Leu	Glu	Val	Leu	Lys	Leu	Glu	Leu	Ile	Pro	Asp	Val		185	190	195	
Thr	Ile	Pro	Pro	Ser	Ile	Ala	Gln	Leu	Thr	Gly	Leu	Lys	Glu	Leu		200	205	210	
Trp	Leu	Tyr	His	Thr	Ala	Ala	Lys	Ile	Glu	Ala	Pro	Ala	Leu	Ala		215	220	225	
Phe	Leu	Arg	Glu	Asn	Leu	Arg	Ala	Leu	His	Ile	Lys	Phe	Thr	Asp		230	235	240	
Ile	Lys	Glu	Ile	Pro	Leu	Trp	Ile	Tyr	Ser	Leu	Lys	Thr	Leu	Glu		245	250	255	
Glu	Leu	His	Leu	Thr	Gly	Asn	Leu	Ser	Ala	Glu	Asn	Asn	Arg	Tyr		260	265	270	
Ile	Val	Ile	Asp	Gly	Leu	Arg	Glu	Leu	Lys	Arg	Leu	Lys	Val	Leu		275	280	285	
Arg	Leu	Lys	Ser	Asn	Leu	Ser	Lys	Leu	Pro	Gln	Val	Val	Thr	Asp		290	295	300	

Val Gly Val His	Leu Gln Lys Leu Ser	Ile Asn Asn Glu Gly Thr	305	310	315
Lys Leu Ile Val	Leu Asn Ser Leu Lys	Lys Met Ala Asn Leu Thr	320	325	330
Glu Leu Glu Leu	Ile Arg Cys Asp Leu	Glu Arg Ile Pro His Ser	335	340	345
Ile Phe Ser Leu	His Asn Leu Gln Glu	Ile Asp Leu Lys Asp Asn	350	355	360
Asn Leu Lys Thr	Ile Glu Glu Ile Ile	Ser Phe Gln His Leu His	365	370	375
Arg Leu Thr Cys	Leu Lys Leu Trp Tyr	Asn His Ile Ala Tyr Ile	380	385	390
Pro Ile Gln Ile	Gly Asn Leu Thr Asn	Leu Glu Arg Leu Tyr Leu	395	400	405
Asn Arg Asn Lys	Ile Glu Lys Ile Pro	Thr Gln Leu Phe Tyr Cys	410	415	420
Arg Lys Leu Arg	Tyr Leu Asp Leu Ser	His Asn Asn Leu Thr Phe	425	430	435
Leu Pro Ala Asp	Ile Gly Leu Leu Gln	Asn Leu Gln Asn Leu Ala	440	445	450
Ile Thr Ala Asn	Arg Ile Glu Thr Leu	Pro Pro Glu Leu Phe Gln	455	460	465
Cys Arg Lys Leu	Arg Ala Leu His Leu	Gly Asn Asn Val Leu Gln	470	475	480
Ser Leu Pro Ser	Arg Val Gly Glu Leu	Thr Asn Leu Thr Gln Ile	485	490	495
Glu Leu Arg Gly	Asn Arg Leu Glu Cys	Leu Pro Val Glu Leu Gly	500	505	510
Glu Cys Pro Leu	Leu Lys Arg Ser Gly	Leu Val Val Glu Glu Asp	515	520	525
Leu Phe Asn Thr	Leu Pro Pro Glu Val	Lys Glu Arg Leu Trp Arg	530	535	540
Ala Asp Lys Glu	Gln Ala		545		

<210> 251

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Oligonucleotide Probe

<400> 251
 caacaatgag ggcaccaagc 20
 <210> 252
 <211> 24
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic Oligonucleotide Probe

 <400> 252
 gatggctagg ttctggaggt tctg 24

 <210> 253
 <211> 47
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic Oligonucleotide Probe

 <400> 253
 caacctgcag gagattgacc tcaaggacaa caacctcaag accatcg 47

 <210> 254
 <211> 1650
 <212> DNA
 <213> Homo Sapien

 <400> 254
 gcctgttgct gatgctgccg tgcggtactt gtcattggagc tggcactgcg 50
 gcgctctccc gtcccgcggt ggttgcctgt gctgccgctg ctgctgggccc 100
 tgaacgcagg agctgtcatt gactggccca cagaggaggg caaggaagta 150
 tgggattatg tgacgggtccg caaggatgcc tacatgttct ggtggctcta 200
 ttatgccacc aactcctgca agaacttctc agaactgccc ctggtcatgt 250
 ggcttcaggc cggtccaggc ggttctagca ctggatttgg aaactttgag 300
 gaaattgggc cccttgacag tgatctcaaa ccacggaaaa ccacctggct 350
 ccaggctgcc agtctcctat ttgtggataa tcccgtaggc actgggttca 400
 gttatgtgaa tggtagtggt gcctatgcc aaggacctggc tatggtggct 450
 tcagacatga tggttctcct gaagaccttc ttcagttgcc acaaagaatt 500
 ccagacagtt ccattctaca ttttctcaga gtccatgga ggaaaaatgg 550
 cagctggcat tggcttagag ctttataagg ccattcagcg agggaccatc 600
 aagtgcact ttgcgggggt tgccttgggt gattcctgga tctccctgt 650
 tgattcggtg ctctcctggg gaccttacct gtacagcatg tctcttctcg 700

aagacaaagg tctggcagag gtgtctaagg ttgcagagca agtactgaat 750
gccgtaaata agggggtctta cagagaggcc acagagctgt gggggaaagc 800
agaaatgatc attgaacaga acacagatgg ggtgaacttc tataacatct 850
taactaaaag cactcccacg tctacaatgg agtcgagtct agaattcaca 900
cagagccacc tagtttgtct ttgtcagcgc cacgtgagac acctacaacg 950
agatgcctta agccagctca tgaatggccc catcagaaaag aagctcaaaa 1000
ttattcctga ggatcaatcc tggggaggcc aggctaccaa cgtctttgtg 1050
aacatggagg aggacttcat gaagccagtc attagcattg tggacgagtt 1100
gctggaggca gggatcaacg tgacggtgta taatggacag ctggatctca 1150
tcgtagatac catgggtcag gaggcctggg tgcggaaact gaagtggcca 1200
gaactgccta aattcagtca gctgaagtgg aaggccctgt acagtgaccc 1250
taaactcttg gaaacatctg cttttgtcaa gtcctacaag aaccttgctt 1300
tctactggat tctgaaagct ggtcatatgg ttccttctga ccaaggggac 1350
atggctctga agatgatgag actggtgact cagcaagaat aggatggatg 1400
gggctggaga tgagctgggt tggccttggg gcacagagct gagctgaggc 1450
cgctgaagct gtaggaagcg ccattcttcc ctgtatctaa ctggggctgt 1500
gatcaagaag gttctgacca gcttctgcag aggataaaat cattgtctct 1550
ggaggcaatt tggaaattat ttctgcttct taaaaaaacc taagattttt 1600
taaaaaattg atttgttttg atcaaaataa aggatgataa tagatattaa 1650

<210> 255

<211> 452

<212> PRT

<213> Homo Sapien

<400> 255

Met	Glu	Leu	Ala	Leu	Arg	Arg	Ser	Pro	Val	Pro	Arg	Trp	Leu	Leu
1				5					10				15	

Leu	Leu	Pro	Leu	Leu	Leu	Gly	Leu	Asn	Ala	Gly	Ala	Val	Ile	Asp
			20					25					30	

Trp	Pro	Thr	Glu	Glu	Gly	Lys	Glu	Val	Trp	Asp	Tyr	Val	Thr	Val
			35					40					45	

Arg	Lys	Asp	Ala	Tyr	Met	Phe	Trp	Trp	Leu	Tyr	Tyr	Ala	Thr	Asn
			50					55					60	

Ser	Cys	Lys	Asn	Phe	Ser	Glu	Leu	Pro	Leu	Val	Met	Trp	Leu	Gln
			65					70					75	

Gly Gly Pro Gly Gly Ser Ser Thr Gly Phe Gly Asn Phe Glu Glu

80					85					90				
Ile	Gly	Pro	Leu	Asp	Ser	Asp	Leu	Lys	Pro	Arg	Lys	Thr	Thr	Trp
				95					100					105
Leu	Gln	Ala	Ala	Ser	Leu	Leu	Phe	Val	Asp	Asn	Pro	Val	Gly	Thr
				110					115					120
Gly	Phe	Ser	Tyr	Val	Asn	Gly	Ser	Gly	Ala	Tyr	Ala	Lys	Asp	Leu
				125					130					135
Ala	Met	Val	Ala	Ser	Asp	Met	Met	Val	Leu	Leu	Lys	Thr	Phe	Phe
				140					145					150
Ser	Cys	His	Lys	Glu	Phe	Gln	Thr	Val	Pro	Phe	Tyr	Ile	Phe	Ser
				155					160					165
Glu	Ser	Tyr	Gly	Gly	Lys	Met	Ala	Ala	Gly	Ile	Gly	Leu	Glu	Leu
				170					175					180
Tyr	Lys	Ala	Ile	Gln	Arg	Gly	Thr	Ile	Lys	Cys	Asn	Phe	Ala	Gly
				185					190					195
Val	Ala	Leu	Gly	Asp	Ser	Trp	Ile	Ser	Pro	Val	Asp	Ser	Val	Leu
				200					205					210
Ser	Trp	Gly	Pro	Tyr	Leu	Tyr	Ser	Met	Ser	Leu	Leu	Glu	Asp	Lys
				215					220					225
Gly	Leu	Ala	Glu	Val	Ser	Lys	Val	Ala	Glu	Gln	Val	Leu	Asn	Ala
				230					235					240
Val	Asn	Lys	Gly	Leu	Tyr	Arg	Glu	Ala	Thr	Glu	Leu	Trp	Gly	Lys
				245					250					255
Ala	Glu	Met	Ile	Ile	Glu	Gln	Asn	Thr	Asp	Gly	Val	Asn	Phe	Tyr
				260					265					270
Asn	Ile	Leu	Thr	Lys	Ser	Thr	Pro	Thr	Ser	Thr	Met	Glu	Ser	Ser
				275					280					285
Leu	Glu	Phe	Thr	Gln	Ser	His	Leu	Val	Cys	Leu	Cys	Gln	Arg	His
				290					295					300
Val	Arg	His	Leu	Gln	Arg	Asp	Ala	Leu	Ser	Gln	Leu	Met	Asn	Gly
				305					310					315
Pro	Ile	Arg	Lys	Lys	Leu	Lys	Ile	Ile	Pro	Glu	Asp	Gln	Ser	Trp
				320					325					330
Gly	Gly	Gln	Ala	Thr	Asn	Val	Phe	Val	Asn	Met	Glu	Glu	Asp	Phe
				335					340					345
Met	Lys	Pro	Val	Ile	Ser	Ile	Val	Asp	Glu	Leu	Leu	Glu	Ala	Gly
				350					355					360
Ile	Asn	Val	Thr	Val	Tyr	Asn	Gly	Gln	Leu	Asp	Leu	Ile	Val	Asp
				365					370					375

Thr	Met	Gly	Gln	Glu	Ala	Trp	Val	Arg	Lys	Leu	Lys	Trp	Pro	Glu	
				380					385					390	
Leu	Pro	Lys	Phe	Ser	Gln	Leu	Lys	Trp	Lys	Ala	Leu	Tyr	Ser	Asp	
				395					400					405	
Pro	Lys	Ser	Leu	Glu	Thr	Ser	Ala	Phe	Val	Lys	Ser	Tyr	Lys	Asn	
				410					415					420	
Leu	Ala	Phe	Tyr	Trp	Ile	Leu	Lys	Ala	Gly	His	Met	Val	Pro	Ser	
				425					430					435	
Asp	Gln	Gly	Asp	Met	Ala	Leu	Lys	Met	Met	Arg	Leu	Val	Thr	Gln	
				440					445					450	

Gln Glu

<210> 256

<211> 1100

<212> DNA

<213> Homo Sapien

<400> 256

```

ggccgcggga gaggaggcca tgggcgcgcg cggggcgctg ctgctggcgc 50
tgctgctggc tcgggctgga ctcaggaagc cggagtcgca ggaggcggcg 100
ccgttatcag gaccatgcgg ccgacgggtc atcacgtcgc gcatcgtggg 150
tgagagaggac gccgaactcg ggcgttgccc gtggcagggg agcctgcgcc 200
tgtgggattc ccacgtatgc ggagttagcc tgctcagcca ccgctgggca 250
ctcacggcgg cgcaactgctt tgaaacctat agtgacctta gtgatccctc 300
cgggtggatg gtccagtttg gccagctgac ttccatgcca tccttctgga 350
gcctgcaggc ctactacacc cgttacttcg tatcgaatat ctatctgagc 400
cctcgctacc tggggaattc accctatgac attgccttgg tgaagctgtc 450
tgcacctgtc acctacacta aacacatcca gcccattctgt ctccaggcct 500
ccacatttga gtttgagaac cggacagact gctgggtgac tggctggggg 550
tacatcaaag aggatgaggc actgccatct cccacacccc tccaggaagt 600
tcaggctgcc atcataaaca actctatgtg caaccacctc ttcctcaagt 650
acagtttccg caaggacatc tttggagaca tggtttgtgc tggcaacgcc 700
caaggcggga aggatgcctg cttcggtgac tcagggtggac ccttggcctg 750
taacaagaat ggactgtggt atcagattgg agtcgtgagc tggggagtgg 800
gctgtggtcg gcccaatcgg cccgggtgtc acaccaatat cagccaccac 850
tttgagtgga tccagaagct gatggcccag agtggcatgt cccagccaga 900

```

cccctcctgg ccactactct ttttcctct tctctgggct ctcccactcc 950
 tggggccggt ctgagcctac ctgagcccat gcagcctggg gccactgcca 1000
 agtcaggccc tggttctctt ctgtcttggt tggtaataaa cacattccag 1050
 ttgatgcctt gcagggcatt cttcaaaaaa aaaaaaaaaa aaaaaaaaaa 1100

<210> 257
 <211> 314
 <212> PRT
 <213> Homo Sapien

<400> 257
 Met Gly Ala Arg Gly Ala Leu Leu Leu Ala Leu Leu Leu Ala Arg
 1 5 10 15
 Ala Gly Leu Arg Lys Pro Glu Ser Gln Glu Ala Ala Pro Leu Ser
 20 25 30
 Gly Pro Cys Gly Arg Arg Val Ile Thr Ser Arg Ile Val Gly Gly
 35 40 45
 Glu Asp Ala Glu Leu Gly Arg Trp Pro Trp Gln Gly Ser Leu Arg
 50 55 60
 Leu Trp Asp Ser His Val Cys Gly Val Ser Leu Leu Ser His Arg
 65 70 75
 Trp Ala Leu Thr Ala Ala His Cys Phe Glu Thr Tyr Ser Asp Leu
 80 85 90
 Ser Asp Pro Ser Gly Trp Met Val Gln Phe Gly Gln Leu Thr Ser
 95 100 105
 Met Pro Ser Phe Trp Ser Leu Gln Ala Tyr Tyr Thr Arg Tyr Phe
 110 115 120
 Val Ser Asn Ile Tyr Leu Ser Pro Arg Tyr Leu Gly Asn Ser Pro
 125 130 135
 Tyr Asp Ile Ala Leu Val Lys Leu Ser Ala Pro Val Thr Tyr Thr
 140 145 150
 Lys His Ile Gln Pro Ile Cys Leu Gln Ala Ser Thr Phe Glu Phe
 155 160 165
 Glu Asn Arg Thr Asp Cys Trp Val Thr Gly Trp Gly Tyr Ile Lys
 170 175 180
 Glu Asp Glu Ala Leu Pro Ser Pro His Thr Leu Gln Glu Val Gln
 185 190 195
 Val Ala Ile Ile Asn Asn Ser Met Cys Asn His Leu Phe Leu Lys
 200 205 210
 Tyr Ser Phe Arg Lys Asp Ile Phe Gly Asp Met Val Cys Ala Gly
 215 220 225

Asn	Ala	Gln	Gly	Gly	Lys	Asp	Ala	Cys	Phe	Gly	Asp	Ser	Gly	Gly	230	235	240
Pro	Leu	Ala	Cys	Asn	Lys	Asn	Gly	Leu	Trp	Tyr	Gln	Ile	Gly	Val	245	250	255
Val	Ser	Trp	Gly	Val	Gly	Cys	Gly	Arg	Pro	Asn	Arg	Pro	Gly	Val	260	265	270
Tyr	Thr	Asn	Ile	Ser	His	His	Phe	Glu	Trp	Ile	Gln	Lys	Leu	Met	275	280	285
Ala	Gln	Ser	Gly	Met	Ser	Gln	Pro	Asp	Pro	Ser	Trp	Pro	Leu	Leu	290	295	300
Phe	Phe	Pro	Leu	Leu	Trp	Ala	Leu	Pro	Leu	Leu	Gly	Pro	Val		305	310	

<210> 258

<211> 2427

<212> DNA

<213> Homo Sapien

<400> 258

```

cccacgcgctc cgcggaacgcg tgggaagggc agaatgggac tccaagcctg 50
cctcctaggg ctctttgccc tcctcctctc tggcaaattgc agttacagcc 100
cggagcccga ccagcggagg acgctgcccc caggctgggt gtccctgggc 150
cgtgcggacc ctgaggaaga gctgagtctc acctttgccc tgagacagca 200
gaatgtggaa agactctcgg agctggtgca ggctgtgtcg gatcccagct 250
ctcctcaata cggaaaatac ctgaccctag agaattgtggc tgatctggtg 300
aggccatccc cactgaccct ccacacggtg caaaaatggc tcttggcagc 350
cggagcccag aagtgccatt ctgtgatcac acaggacttt ctgacttgct 400
ggctgagcat ccgacaagca gagctgctgc tccctggggc tgagtttcat 450
cactatgtgg gaggacctac ggaaacccat gttgtaaggt cccacatcc 500
ctaccagctt ccacaggcct tggcccccca tgtggacttt gtgggggggac 550
tgcaccgttt tcccccaaca tcctcctga ggcaacgtcc tgagccgcag 600
gtgacagggg ctgtaggcct gcatctgggg gtaacccct ctgtgatccg 650
taagcgatac aacttgacct cacaagacgt gggctctggc accagcaata 700
acagccaagc ctgtgcccag ttctgggagc agtatttcca tgactcagac 750
ctggctcagt tcctgcgcct cttcgggtggc aactttgcac atcaggcatc 800
agtagcccg gtggttgagc aacagggccg gggccgggccc gggattgagg 850
ccagtctaga tgtgcagtac ctgatgagtg ctggtgccaa catctccacc 900

```

tgggtctaca gtagccctgg ccggcatgag ggacaggagc ccttcctgca 950
 gtggctcatg ctgctcagta atgagtcagc cctgccacat gtgcatactg 1000
 tgagctatgg agatgatgag gactccctca gcagcgccta catccagcgg 1050
 gtcaacactg agctcatgaa ggctgccgct cgggggtctca ccctgctctt 1100
 cgcctcaggt gacagtgggg ccgggtgttg gtctgtctct ggaagacacc 1150
 agttccgccc taccttcctt gcctccagcc cctatgtcac cacagtggga 1200
 ggcacatcct tccaggaacc tttcctcatc acaaataaaa ttgttgacta 1250
 tatcagtggg ggtggcttca gcaatgtggt cccacggcct tcataccagg 1300
 aggaagctgt aacgaagttc ctgagctcta gccccacct gccaccatcc 1350
 agttacttca atgccagtgg ccgtgcctac ccagatgtgg ctgcactttc 1400
 tgatggctac tgggtgtgca gcaacagagt gccattcca tgggtgtccg 1450
 gaacctcggc ctctactcca gtgtttgggg ggatcctatc cttgatcaat 1500
 gagcacagga tccttagtgg ccgccccctt cttggctttc tcaaccaag 1550
 gctctaccag cagcatgggg caggtctctt tgatgtaacc cgtggctgcc 1600
 atgagtcctg tctggatgaa gaggtagagg gccagggttt ctgctctggg 1650
 cctggctggg atcctgtaac aggctgggga acaccaactt cccagctttg 1700
 ctgaagactc tactcaacc ctgacctttt cctatcagga gagatggctt 1750
 gtccccctgc ctgaagctgg cagttcagtc ccttattctg ccctgttgga 1800
 agccccctg agacctcaac tattgactgc tgcagacagc ttatctccct 1850
 aacctgaaa tgctgtgagc ttgacttgac tcccaacctt accatgctcc 1900
 atcatactca ggtctcccta ctctgcctt agattcctca ataagatgct 1950
 gtaactagca ttttttgaat gcctctccct ccgcattctca tctttctctt 2000
 ttcaatcagg cttttccaaa gggttgtata cagactctgt gcactatttc 2050
 acttgatatt cattccccaa ttcactgcaa ggagacctct actgtcaccg 2100
 tttactcttt cctaccctga catccagaaa caatggcctc cagtgcatac 2150
 ttctcaatct ttgctttatg gcctttccat catagttgcc cactccctct 2200
 ccttacttag ctccaggtc ttaacttctc tgactactct tgtcttctc 2250
 tctcatcaat ttctgcttct tcatggaatg ctgaccttca ttgctccatt 2300
 tgtagatttt tgctcttctc agtttactca ttgtcccctg gaacaaatca 2350

ctgacatcta caaccattac catctcacta aataagactt tctatccaat 2400

aatgattgat acctcaaatg taaaaaa 2427

<210> 259

<211> 556

<212> PRT

<213> Homo Sapien

<400> 259

Met Gly Leu Gln Ala Cys Leu Leu Gly Leu Phe Ala Leu Ile Leu
1 5 10 15

Ser Gly Lys Cys Ser Tyr Ser Pro Glu Pro Asp Gln Arg Arg Thr
20 25 30

Leu Pro Pro Gly Trp Val Ser Leu Gly Arg Ala Asp Pro Glu Glu
35 40 45

Glu Leu Ser Leu Thr Phe Ala Leu Arg Gln Gln Asn Val Glu Arg
50 55 60

Leu Ser Glu Leu Val Gln Ala Val Ser Asp Pro Ser Ser Pro Gln
65 70 75

Tyr Gly Lys Tyr Leu Thr Leu Glu Asn Val Ala Asp Leu Val Arg
80 85 90

Pro Ser Pro Leu Thr Leu His Thr Val Gln Lys Trp Leu Leu Ala
95 100 105

Ala Gly Ala Gln Lys Cys His Ser Val Ile Thr Gln Asp Phe Leu
110 115 120

Thr Cys Trp Leu Ser Ile Arg Gln Ala Glu Leu Leu Leu Pro Gly
125 130 135

Ala Glu Phe His His Tyr Val Gly Gly Pro Thr Glu Thr His Val
140 145 150

Val Arg Ser Pro His Pro Tyr Gln Leu Pro Gln Ala Leu Ala Pro
155 160 165

His Val Asp Phe Val Gly Gly Leu His Arg Phe Pro Pro Thr Ser
170 175 180

Ser Leu Arg Gln Arg Pro Glu Pro Gln Val Thr Gly Thr Val Gly
185 190 195

Leu His Leu Gly Val Thr Pro Ser Val Ile Arg Lys Arg Tyr Asn
200 205 210

Leu Thr Ser Gln Asp Val Gly Ser Gly Thr Ser Asn Asn Ser Gln
215 220 225

Ala Cys Ala Gln Phe Leu Glu Gln Tyr Phe His Asp Ser Asp Leu
230 235 240

Ala Gln Phe Met Arg Leu Phe Gly Gly Asn Phe Ala His Gln Ala

	245		250		255
Ser Val Ala Arg	Val Val Gly Gln Gln	Gly Arg Gly Arg Ala Gly			
	260	265			270
Ile Glu Ala Ser	Leu Asp Val Gln Tyr	Leu Met Ser Ala Gly Ala			
	275	280			285
Asn Ile Ser Thr	Trp Val Tyr Ser Ser	Pro Gly Arg His Glu Gly			
	290	295			300
Gln Glu Pro Phe	Leu Gln Trp Leu Met	Leu Leu Ser Asn Glu Ser			
	305	310			315
Ala Leu Pro His	Val His Thr Val Ser	Tyr Gly Asp Asp Glu Asp			
	320	325			330
Ser Leu Ser Ser	Ala Tyr Ile Gln Arg	Val Asn Thr Glu Leu Met			
	335	340			345
Lys Ala Ala Ala	Arg Gly Leu Thr Leu	Leu Phe Ala Ser Gly Asp			
	350	355			360
Ser Gly Ala Gly	Cys Trp Ser Val Ser	Gly Arg His Gln Phe Arg			
	365	370			375
Pro Thr Phe Pro	Ala Ser Ser Pro Tyr	Val Thr Thr Val Gly Gly			
	380	385			390
Thr Ser Phe Gln	Glu Pro Phe Leu Ile	Thr Asn Glu Ile Val Asp			
	395	400			405
Tyr Ile Ser Gly	Gly Gly Phe Ser Asn	Val Phe Pro Arg Pro Ser			
	410	415			420
Tyr Gln Glu Glu	Ala Val Thr Lys Phe	Leu Ser Ser Ser Pro His			
	425	430			435
Leu Pro Pro Ser	Ser Tyr Phe Asn Ala	Ser Gly Arg Ala Tyr Pro			
	440	445			450
Asp Val Ala Ala	Leu Ser Asp Gly Tyr	Trp Val Val Ser Asn Arg			
	455	460			465
Val Pro Ile Pro	Trp Val Ser Gly Thr	Ser Ala Ser Thr Pro Val			
	470	475			480
Phe Gly Gly Ile	Leu Ser Leu Ile Asn	Glu His Arg Ile Leu Ser			
	485	490			495
Gly Arg Pro Pro	Leu Gly Phe Leu Asn	Pro Arg Leu Tyr Gln Gln			
	500	505			510
His Gly Ala Gly	Leu Phe Asp Val Thr	Arg Gly Cys His Glu Ser			
	515	520			525
Cys Leu Asp Glu	Glu Val Glu Gly Gln	Gly Phe Cys Ser Gly Pro			
	530	535			540

Gly Trp Asp Pro Val Thr Gly Trp Gly Thr Pro Thr Ser Gln Leu
545 550 555

Cys

<210> 260

<211> 1638

<212> DNA

<213> Homo Sapien

<400> 260

```

gccgcgcgct ctctcccggc gccacacact gtctgagcgg cgcagcgagc 50
cgcgggccccg gcgggctgct cggcgcgga cagtgtcgg catggcaggg 100
attccagggc tcctcttct tctcttctt ctgctctgtg ctggtgggca 150
agtgagccct tacagtgcc cctggaaacc cacttggcct gcataccgcc 200
tcctgtctgt cttgccccag tctaccctca atttagccaa gccagacttt 250
ggagccgaag ccaaattaga agtatcttct tcatgtggac ccagtggtca 300
taagggaact ccactgccc cttacgaaga ggccaagcaa tatctgtctt 350
atgaaacgct ctatgccaat ggcagccgca cagagacgca ggtgggcatc 400
tacatctca gcagtagtgg agatggggcc caacaccgag actcagggtc 450
ttcaggaaag tctcgaagga agcggcagat ttatggctat gacagcaggt 500
tcagcatttt tgggaaggac ttctgtctca actacccttt ctcaacatca 550
gtgaagttat ccacgggctg caccggcacc ctggtggcag agaagcatgt 600
cctcacagct gccactgca tacacgatgg aaaaacctat gtgaaaggaa 650
cccagaagct tcgagtgggc ttctaaagc ccaagtttaa agatggtggt 700
cgagggggcca acgactccac ttcagccatg cccgagcaga tgaaatttca 750
gtggatccgg gtgaaacgca cccatgtgcc caagggttgg atcaagggca 800
atgccaatga catcggcatg gattatgatt atgccctcct ggaactcaaa 850
aagccccaca agagaaaatt tatgaagatt ggggtgagcc ctcttgctaa 900
gcagctgcca gggggcagaa ttcacttctc tggttatgac aatgaccgac 950
caggcaatth ggtgtatcgc ttctgtgacg tcaaagacga gacctatgac 1000
ttgctctacc agcaatgcga tgcccagcca ggggcccagcg ggtctgggg 1050
ctatgtgagg atgtggaaga gacagcagca gaagtgggag cgaaaaatta 1100
ttggcatttt ttcagggcac cagtgggtgg acatgaatgg ttccccacag 1150
gatttcaacg tggctgtcag aatcactcct ctcaaatatg cccagatttg 1200

```

ctattggatt aaaggaaact acctggattg tagggagggg tgacacagtg 1250
 ttccctcctg gcagcaatta agggctcttca tgttcttatt ttaggagagg 1300
 ccaaattggtt ttttgtcatt ggcgtgcaca cgtgtgtgtg tgtgtgtgtg 1350
 tgtgtgtaag gtgtcttata atcttttacc tatttcttac aattgcaaga 1400
 tgactggctt tactatttga aaactgggtt gtgtatcata tcatatatca 1450
 ttttaagcagt ttgaaggcat acttttgcag agaaataaaa aaaataactga 1500
 tttggggcaa tgaggaatat ttgacaatta agttaatctt cacgtttttg 1550
 caaactttga tttttatttc atctgaactt gtttcaaaga tttatattaa 1600
 atatttggca tacaagagat atgaaaaaaaa aaaaaaaaa 1638

<210> 261

<211> 383

<212> PRT

<213> Homo Sapien

<400> 261

Met	Ala	Gly	Ile	Pro	Gly	Leu	Leu	Phe	Leu	Leu	Phe	Phe	Leu	Leu	1	5	10	15
Cys	Ala	Val	Gly	Gln	Val	Ser	Pro	Tyr	Ser	Ala	Pro	Trp	Lys	Pro	20	25	30	
Thr	Trp	Pro	Ala	Tyr	Arg	Leu	Pro	Val	Val	Leu	Pro	Gln	Ser	Thr	35	40	45	
Leu	Asn	Leu	Ala	Lys	Pro	Asp	Phe	Gly	Ala	Glu	Ala	Lys	Leu	Glu	50	55	60	
Val	Ser	Ser	Ser	Cys	Gly	Pro	Gln	Cys	His	Lys	Gly	Thr	Pro	Leu	65	70	75	
Pro	Thr	Tyr	Glu	Glu	Ala	Lys	Gln	Tyr	Leu	Ser	Tyr	Glu	Thr	Leu	80	85	90	
Tyr	Ala	Asn	Gly	Ser	Arg	Thr	Glu	Thr	Gln	Val	Gly	Ile	Tyr	Ile	95	100	105	
Leu	Ser	Ser	Ser	Gly	Asp	Gly	Ala	Gln	His	Arg	Asp	Ser	Gly	Ser	110	115	120	
Ser	Gly	Lys	Ser	Arg	Arg	Lys	Arg	Gln	Ile	Tyr	Gly	Tyr	Asp	Ser	125	130	135	
Arg	Phe	Ser	Ile	Phe	Gly	Lys	Asp	Phe	Leu	Leu	Asn	Tyr	Pro	Phe	140	145	150	
Ser	Thr	Ser	Val	Lys	Leu	Ser	Thr	Gly	Cys	Thr	Gly	Thr	Leu	Val	155	160	165	
Ala	Glu	Lys	His	Val	Leu	Thr	Ala	Ala	His	Cys	Ile	His	Asp	Gly	170	175	180	

Lys Thr Tyr Val	Lys Gly Thr Gln Lys	Leu Arg Val Gly Phe Leu	185	190	195
Lys Pro Lys Phe	Lys Asp Gly Gly Arg	Gly Ala Asn Asp Ser Thr	200	205	210
Ser Ala Met Pro	Glu Gln Met Lys Phe	Gln Trp Ile Arg Val Lys	215	220	225
Arg Thr His Val	Pro Lys Gly Trp Ile	Lys Gly Asn Ala Asn Asp	230	235	240
Ile Gly Met Asp	Tyr Asp Tyr Ala Leu	Leu Glu Leu Lys Lys Pro	245	250	255
His Lys Arg Lys	Phe Met Lys Ile Gly	Val Ser Pro Pro Ala Lys	260	265	270
Gln Leu Pro Gly	Gly Arg Ile His Phe	Ser Gly Tyr Asp Asn Asp	275	280	285
Arg Pro Gly Asn	Leu Val Tyr Arg Phe	Cys Asp Val Lys Asp Glu	290	295	300
Thr Tyr Asp Leu	Leu Tyr Gln Gln Cys	Asp Ala Gln Pro Gly Ala	305	310	315
Ser Gly Ser Gly	Val Tyr Val Arg Met	Trp Lys Arg Gln Gln Gln	320	325	330
Lys Trp Glu Arg	Lys Ile Ile Gly Ile	Phe Ser Gly His Gln Trp	335	340	345
Val Asp Met Asn	Gly Ser Pro Gln Asp	Phe Asn Val Ala Val Arg	350	355	360
Ile Thr Pro Leu	Lys Tyr Ala Gln Ile	Cys Tyr Trp Ile Lys Gly	365	370	375
Asn Tyr Leu Asp	Cys Arg Glu Gly		380		

<210> 262

<211> 1378

<212> DNA

<213> Homo Sapien

<400> 262

```

gcacgcacct gggctctctcg agcctgctgc ctgctcccc gccccaccag 50
ccatgggtggt ttctggagcg cccccagccc tgggtggggg ctgtctcggc 100
accttcacct ccctgctgct gctggcgctg acagccatcc tcaatgcggc 150
caggatacct gttccccag cctgtgggaa gccccagcag ctgaaccggg 200
ttgtggggcg cgaggacagc actgacagcg agtggccctg gatcgtgagc 250
atccagaaga atgggaccca cactgcgca gggtctctgc tcaccagccg 300

```

ctgggtgatac actgctgccc actgtttcaa ggacaacctg aacaaaccat 350
 acctgttctc tgtgctgctg ggggcctggc agctggggaa ccctggctct 400
 cgggtcccaga aggtgggtgt tgcctgggtg gagccccacc ctgtgtattc 450
 ctggaaggaa ggtgcctgtg cagacattgc cctggtgcgt ctcgagcgct 500
 ccatacagtt ctgagagcgg gtccctgccc tctgcctacc tgatgcctct 550
 atccacctcc ctccaaacac ccactgctgg atctcaggct gggggagcat 600
 ccaagatgga gttcccttgc cccacctca gacctgcag aagctgaagg 650
 ttcctatcat cgactcggaa gtctgcagcc atctgtactg gcggggagca 700
 ggacagggac ccatcactga ggacatgctg tgtgccggct acttgaggag 750
 ggagcgggat gcttgtctgg gcgactccgg gggccccctc atgtgccagg 800
 tggacggcgc ctggctgctg gccggcatca tcagctgggg cgagggctgt 850
 gccgagcgca acaggcccg ggctctacatc agcctctctg cgcaccgctc 900
 ctgggtggag aagatcgtgc aaggggtgca gctccgcggg cgcgctcagg 950
 ggggtggggc cctcagggca ccgagccagg gctctggggc cgccgcgcgc 1000
 tctagggcg cagcgggacg cggggctcgg atctgaaagg cggccagatc 1050
 cacatctgga tctggatctg cggcggcctc gggcggtttc ccccgccgta 1100
 aataggtca tctacctta cctctggggg cccggacggc tgctgcggaa 1150
 aggaaacccc ctccccgacc cgcccagcgg cctcaggccc ccctccaagg 1200
 catcaggccc cgcccaacgg cctcatgtcc ccgccccac gacttccggc 1250
 cccgcccccg ggccccagcg cttttgtgta tataaatgtt aatgattttt 1300
 ataggtattt gtaaccctgc ccacatatct tatttattcc tccaatttca 1350
 ataaattatt tattctccaa aaaaaaaaa 1378

<210> 263

<211> 317

<212> PRT

<213> Homo Sapien

<400> 263

Met	Val	Val	Ser	Gly	Ala	Pro	Pro	Ala	Leu	Gly	Gly	Gly	Cys	Leu
1				5				10					15	
Gly	Thr	Phe	Thr	Ser	Leu	Leu	Leu	Leu	Ala	Ser	Thr	Ala	Ile	Leu
				20				25					30	
Asn	Ala	Ala	Arg	Ile	Pro	Val	Pro	Pro	Ala	Cys	Gly	Lys	Pro	Gln
				35				40					45	

Gln	Leu	Asn	Arg	Val	Val	Gly	Gly	Glu	Asp	Ser	Thr	Asp	Ser	Glu	
				50					55					60	
Trp	Pro	Trp	Ile	Val	Ser	Ile	Gln	Lys	Asn	Gly	Thr	His	His	Cys	
				65					70					75	
Ala	Gly	Ser	Leu	Leu	Thr	Ser	Arg	Trp	Val	Ile	Thr	Ala	Ala	His	
				80					85					90	
Cys	Phe	Lys	Asp	Asn	Leu	Asn	Lys	Pro	Tyr	Leu	Phe	Ser	Val	Leu	
				95					100					105	
Leu	Gly	Ala	Trp	Gln	Leu	Gly	Asn	Pro	Gly	Ser	Arg	Ser	Gln	Lys	
				110					115					120	
Val	Gly	Val	Ala	Trp	Val	Glu	Pro	His	Pro	Val	Tyr	Ser	Trp	Lys	
				125					130					135	
Glu	Gly	Ala	Cys	Ala	Asp	Ile	Ala	Leu	Val	Arg	Leu	Glu	Arg	Ser	
				140					145					150	
Ile	Gln	Phe	Ser	Glu	Arg	Val	Leu	Pro	Ile	Cys	Leu	Pro	Asp	Ala	
				155					160					165	
Ser	Ile	His	Leu	Pro	Pro	Asn	Thr	His	Cys	Trp	Ile	Ser	Gly	Trp	
				170					175					180	
Gly	Ser	Ile	Gln	Asp	Gly	Val	Pro	Leu	Pro	His	Pro	Gln	Thr	Leu	
				185					190					195	
Gln	Lys	Leu	Lys	Val	Pro	Ile	Ile	Asp	Ser	Glu	Val	Cys	Ser	His	
				200					205					210	
Leu	Tyr	Trp	Arg	Gly	Ala	Gly	Gln	Gly	Pro	Ile	Thr	Glu	Asp	Met	
				215					220					225	
Leu	Cys	Ala	Gly	Tyr	Leu	Glu	Gly	Glu	Arg	Asp	Ala	Cys	Leu	Gly	
				230					235					240	
Asp	Ser	Gly	Gly	Pro	Leu	Met	Cys	Gln	Val	Asp	Gly	Ala	Trp	Leu	
				245					250					255	
Leu	Ala	Gly	Ile	Ile	Ser	Trp	Gly	Glu	Gly	Cys	Ala	Glu	Arg	Asn	
				260					265					270	
Arg	Pro	Gly	Val	Tyr	Ile	Ser	Leu	Ser	Ala	His	Arg	Ser	Trp	Val	
				275					280					285	
Glu	Lys	Ile	Val	Gln	Gly	Val	Gln	Leu	Arg	Gly	Arg	Ala	Gln	Gly	
				290					295					300	
Gly	Gly	Ala	Leu	Arg	Ala	Pro	Ser	Gln	Gly	Ser	Gly	Ala	Ala	Ala	
				305					310					315	

Arg Ser

<210> 264

<211> 24
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic Oligonucleotide Probe

 <400> 264
 gtccgcaagg atgcctacat gttc 24

 <210> 265
 <211> 19
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic Oligonucleotide Probe

 <400> 265
 gcagaggtgt ctaagggtg 19

 <210> 266
 <211> 24
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic Oligonucleotide Probe

 <400> 266
 agctctagac caatgccagc ttcc 24

 <210> 267
 <211> 45
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic Oligonucleotide Probe

 <400> 267
 gccaccaact cctgcaagaa cttctcagaa ctgcccctgg tcatg 45

 <210> 268
 <211> 25
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic Oligonucleotide Probe

 <400> 268
 ggggaattca ccctatgaca ttgcc 25

 <210> 269
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic Oligonucleotide Probe

 <400> 269
 gaatgccctg caagcatcaa ctgg 24

 <210> 270
 <211> 50
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic Oligonucleotide Probe

 <400> 270
 gcacctgtca cctacactaa acacatccag cccatctgtc tccaggcctc 50

 <210> 271
 <211> 26
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic Oligonucleotide Probe

 <400> 271
 gcggaagggc agaatgggac tccaag 26

 <210> 272
 <211> 18
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic Oligonucleotide Probe

 <400> 272
 cagccctgcc acatgtgc 18

 <210> 273
 <211> 18
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic Oligonucleotide Probe

 <400> 273
 tactgggtgg tcagcaac 18

 <210> 274
 <211> 24
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic Oligonucleotide Probe

 <400> 274

ggcgaagagc agggtgagac cccg 24

<210> 275
 <211> 45
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic Oligonucleotide Probe

<400> 275
 gccctcatcc tctctggcaa atgcagttac agcccggagc ccgac 45

<210> 276
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic Oligonucleotide Probe

<400> 276
 gggcagggat tccagggtc c 21

<210> 277
 <211> 18
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic Oligonucleotide Probe

<400> 277
 ggctatgaca gcaggttc 18

<210> 278
 <211> 18
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic Oligonucleotide Probe

<400> 278
 tgacaatgac cgaccagg 18

<210> 279
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic Oligonucleotide Probe

<400> 279
 gcatcgatt gctggttagag caag 24

<210> 280
 <211> 45

<212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic Oligonucleotide Probe

 <400> 280
 ttacagtgcc ccctggaaac ccacttgcc tgcataccgc ctccc 45
 <210> 281
 <211> 34
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic Oligonucleotide Probe

 <400> 281
 cgtctcgagc gctccataca gttcccttgc ccca 34

 <210> 282
 <211> 61
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic Oligonucleotide Probe

 <400> 282
 tggaggggga gcgggatgct tgtctgggcg actccggggg cccctcatg 50

 tgccaggtgg a 61

 <210> 283
 <211> 119
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic Oligonucleotide Probe

 <400> 283
 ccctcagacc ctgcagaagc tgaagggttc tatcatcgac tcggaagtct 50

 gcagccatct gtactggcgg ggagcaggac agggacccat cactgaggac 100

 atgctgtgtg ccggctact 119

 <210> 284
 <211> 1875
 <212> DNA
 <213> Homo Sapien

 <400> 284
 gacggctggc caccatgcac ggctcctgca gtttctgat gcttctgctg 50

 ccgctactgc tactgctggt ggccaccaca ggccccgttg gagccctcac 100

 agatgaggag aaacgtttga tgggtggagct gcacaacctc taccggggccc 150

aggtatcccc gacggcctca gacatgctgc acatgagatg ggacgaggag 200
 ctggccgcct tcgccaaggc ctacgcacgg cagtgcgtgt ggggccacaa 250
 caaggagcgc gggcgccgcg gcgagaatct gttcgccatc acagacgagg 300
 gcatggacgt gccgctggcc atggaggagt ggcaccacga gcgtgagcac 350
 tacaacctca gcgccgccac ctgcagccca ggccagatgt gcggccacta 400
 cacgcagggtg gtatggggca agacagagag gatcggctgt ggttcccact 450
 tctgtgagaa gctccagggt gttgaggaga ccaacatcga attactggtg 500
 tgcaactatg agcctccggg gaacgtgaag gggaaacggc cctaccagga 550
 ggggactccg tgctcccaat gtccctctgg ctaccactgc aagaactccc 600
 tctgtgaacc catcggaagc ccggaagatg ctcaggattt gccttacctg 650
 gtaactgagg ccccatcctt ccgggcgact gaagcatcag actctaggaa 700
 aatgggtact ccttcttccc tagcaacggg gattccggct ttcttggtaa 750
 cagagggtctc aggctccctg gcaaccaagg ctctgcctgc tgtggaaacc 800
 caggccccaa cttccttagc aacgaaagac ccgcctcca tggcaacaga 850
 ggctccacct tgcgtaacaa ctgagggtccc ttccattttg gcagctcaca 900
 gcctgccttc cttggatgag gagccagtta ccttcccaa atcgacccat 950
 gttcctatcc caaaatcagc agacaaagtg acagacaaaa caaaagtgcc 1000
 ctctaggagc ccagagaact ctctggaccc caagatgtcc ctgacagggg 1050
 caagggaact cctaccccat gccaggagg aggctgaggc tgaggctgag 1100
 ttgcctcctt ccagtgaggt cttggcctca gtttttccag ccaggacaa 1150
 gccagggtgag ctgcaggcca cactggacca cacggggcac acctcctcca 1200
 agtcctgcc caatttcccc aatacctctg ccaccgctaa tgccacgggt 1250
 gggcgtgcc tggctctgca gtcgtccttg ccagggtcag agggccctga 1300
 caagcctagc gttgtgtcag ggctgaactc gggccctggg catgtgtggg 1350
 gccctctcct gggactactg ctctgcctc ctctggtgtt ggctggaatc 1400
 ttctgaatgg gataccactc aaagggtgaa gaggtcagct gtcctcctgt 1450
 catcttcccc acctgtccc cagcccctaa acaagatact tcttggttaa 1500
 ggcctccgg aagggaagg ctacggggca tgtgcctcat cacaccatcc 1550
 atcctggagg cacaaggcct ggctggctgc gagctcagga ggccgcctga 1600
 ggactgcaca ccgggcccac acctctcctg cccctcctc ctgagtcctg 1650

ggggtgggag gatttgaggg agctcactgc ctacctggcc tggggctgtc 1700
 tgccacacaca gcatgtgcgc tctccctgag tgctgtgta gctggggatg 1750
 gggattccta ggggcagatg aaggacaagc cccactggag tggggttctt 1800
 tgagtggggg aggcagggac gagggaagga aagtaactcc tgactctcca 1850
 ataaaaacct gtccaacctg tgaaa 1875

<210> 285

<211> 463

<212> PRT

<213> Homo Sapien

<400> 285

Met	His	Gly	Ser	Cys	Ser	Phe	Leu	Met	Leu	Leu	Leu	Pro	Leu	Leu		
1				5					10						15	
Leu	Leu	Leu	Val	Ala	Thr	Thr	Gly	Pro	Val	Gly	Ala	Leu	Thr	Asp		
				20					25					30		
Glu	Glu	Lys	Arg	Leu	Met	Val	Glu	Leu	His	Asn	Leu	Tyr	Arg	Ala		
				35					40					45		
Gln	Val	Ser	Pro	Thr	Ala	Ser	Asp	Met	Leu	His	Met	Arg	Trp	Asp		
				50					55					60		
Glu	Glu	Leu	Ala	Ala	Phe	Ala	Lys	Ala	Tyr	Ala	Arg	Gln	Cys	Val		
				65					70					75		
Trp	Gly	His	Asn	Lys	Glu	Arg	Gly	Arg	Arg	Gly	Glu	Asn	Leu	Phe		
				80					85					90		
Ala	Ile	Thr	Asp	Glu	Gly	Met	Asp	Val	Pro	Leu	Ala	Met	Glu	Glu		
				95					100					105		
Trp	His	His	Glu	Arg	Glu	His	Tyr	Asn	Leu	Ser	Ala	Ala	Thr	Cys		
				110					115					120		
Ser	Pro	Gly	Gln	Met	Cys	Gly	His	Tyr	Thr	Gln	Val	Val	Trp	Ala		
				125					130					135		
Lys	Thr	Glu	Arg	Ile	Gly	Cys	Gly	Ser	His	Phe	Cys	Glu	Lys	Leu		
				140					145					150		
Gln	Gly	Val	Glu	Glu	Thr	Asn	Ile	Glu	Leu	Leu	Val	Cys	Asn	Tyr		
				155					160					165		
Glu	Pro	Pro	Gly	Asn	Val	Lys	Gly	Lys	Arg	Pro	Tyr	Gln	Glu	Gly		
				170					175					180		
Thr	Pro	Cys	Ser	Gln	Cys	Pro	Ser	Gly	Tyr	His	Cys	Lys	Asn	Ser		
				185					190					195		
Leu	Cys	Glu	Pro	Ile	Gly	Ser	Pro	Glu	Asp	Ala	Gln	Asp	Leu	Pro		
				200					205					210		

Tyr	Leu	Val	Thr	Glu	Ala	Pro	Ser	Phe	Arg	Ala	Thr	Glu	Ala	Ser	215	220	225
Asp	Ser	Arg	Lys	Met	Gly	Thr	Pro	Ser	Ser	Leu	Ala	Thr	Gly	Ile	230	235	240
Pro	Ala	Phe	Leu	Val	Thr	Glu	Val	Ser	Gly	Ser	Leu	Ala	Thr	Lys	245	250	255
Ala	Leu	Pro	Ala	Val	Glu	Thr	Gln	Ala	Pro	Thr	Ser	Leu	Ala	Thr	260	265	270
Lys	Asp	Pro	Pro	Ser	Met	Ala	Thr	Glu	Ala	Pro	Pro	Cys	Val	Thr	275	280	285
Thr	Glu	Val	Pro	Ser	Ile	Leu	Ala	Ala	His	Ser	Leu	Pro	Ser	Leu	290	295	300
Asp	Glu	Glu	Pro	Val	Thr	Phe	Pro	Lys	Ser	Thr	His	Val	Pro	Ile	305	310	315
Pro	Lys	Ser	Ala	Asp	Lys	Val	Thr	Asp	Lys	Thr	Lys	Val	Pro	Ser	320	325	330
Arg	Ser	Pro	Glu	Asn	Ser	Leu	Asp	Pro	Lys	Met	Ser	Leu	Thr	Gly	335	340	345
Ala	Arg	Glu	Leu	Leu	Pro	His	Ala	Gln	Glu	Glu	Ala	Glu	Ala	Glu	350	355	360
Ala	Glu	Leu	Pro	Pro	Ser	Ser	Glu	Val	Leu	Ala	Ser	Val	Phe	Pro	365	370	375
Ala	Gln	Asp	Lys	Pro	Gly	Glu	Leu	Gln	Ala	Thr	Leu	Asp	His	Thr	380	385	390
Gly	His	Thr	Ser	Ser	Lys	Ser	Leu	Pro	Asn	Phe	Pro	Asn	Thr	Ser	395	400	405
Ala	Thr	Ala	Asn	Ala	Thr	Gly	Gly	Arg	Ala	Leu	Ala	Leu	Gln	Ser	410	415	420
Ser	Leu	Pro	Gly	Ala	Glu	Gly	Pro	Asp	Lys	Pro	Ser	Val	Val	Ser	425	430	435
Gly	Leu	Asn	Ser	Gly	Pro	Gly	His	Val	Trp	Gly	Pro	Leu	Leu	Gly	440	445	450
Leu	Leu	Leu	Leu	Pro	Pro	Leu	Val	Leu	Ala	Gly	Ile	Phe			455	460	

<210> 286

<211> 19

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Oligonucleotide Probe

<400> 286

tcctgcagtt tcctgatgc 19

<210> 287
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic Oligonucleotide Probe

<400> 287
 ctcatattgc acaccagtaa ttcg 24

<210> 288
 <211> 45
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic Oligonucleotide Probe

<400> 288
 atgaggagaa acgtttgatg gtggagctgc acaacctcta ccggg 45

<210> 289
 <211> 3662
 <212> DNA
 <213> Homo Sapien

<400> 289
 gtaactgaag tcaggctttt catttgggaa gccccctcaa cagaattcgg 50
 tcattctcca agttatggtg gacgtacttc tgttggtctc cctctgcttg 100
 ctttttcaca ttagcagacc ggacttaagt cacaacagat tatctttcat 150
 caaggcaagt tccatgagcc accttcaaag ccttcgagaa gtgaaactga 200
 acaacaatga attggagacc attccaaatc tgggaccagt ctcggaacat 250
 attacacttc tctccttggc tggaacagg attggtgaaa tactccctga 300
 acatctgaaa gagtttcagt cccttgaaac tttggacctt agcagcaaca 350
 atatttcaga gctccaaact gcatttccag ccctacagct caaatatctg 400
 tatctcaaca gcaaccgagt cacatcaatg gaacctgggt attttgacaa 450
 tttggccaac acactccttg tgttaaagct gaacaggaac cgaatctcag 500
 ctatcccacc caagatgttt aaactgcccc aactgcaaca tctcgaattg 550
 aaccgaaaca agattaaaaa tgtagatgga ctgacattcc aaggccttgg 600
 tgctctgaag tctctgaaaa tgcaaagaaa tggagtaacg aaacttatgg 650
 atggagcttt ttgggggctg agcaacatgg aaattttgca gctggaccat 700
 aacaacctaa cagagattac caaaggctgg ctttacggct tgctgatgct 750

gcaggaactt catctcagcc aaaatgccat caacaggatc agccctgatg 800
cctgggagtt ctgccagaag ctcaagtgagc tggacctaac tttcaatcac 850
ttatcaaggt tagatgattc aagcttcctt ggcctaagct tactaaatac 900
actgcacatt gggaacaaca gagtcagcta cattgctgat tgtgccttcc 950
gggggctttc cagttttaaag actttggatc tgaagaacaa tgaaatttcc 1000
tggactattg aagacatgaa tgggtgctttc tctgggcttg acaaactgag 1050
gcgactgata ctccaaggaa atcggatccg ttctattact aaaaaagcct 1100
tcactggttt ggatgcattg gagcatctag acctgagtga caacgcaatc 1150
atgtctttac aaggcaatgc attttcacaa atgaagaaac tgcaacaatt 1200
gcattttaa atcatcaagcc ttttgtgcca ttgccagcta aaatggctcc 1250
cacagtgggt ggcggaaaac aactttcaga gctttgtaaa tgccagttgt 1300
gcccatcctc agctgctaaa aggaagaagc atttttgctg ttagcccaga 1350
tggctttgtg tgtgatgatt ttcccaaacc ccagatcacg gttcagccag 1400
aaacacagtc ggcaataaaa ggttccaatt tgagtttcat ctgctcagct 1450
gccagcagca gtgattcccc aatgactttt gcttggaata aagacaatga 1500
actactgcat gatgctgaaa tggaaaatta tgcacacctc cgggccaag 1550
gtggcgaggt gatggagtat accaccatcc ttcggtgctg cgaggtggaa 1600
tttgccagtg aggggaaata tcagtgtgtc atctccaatc actttggttc 1650
atcctactct gtcaaagcca agcttacagt aaatatgctt ccctcattca 1700
ccaagacccc catggatctc accatccgag ctggggccat ggcacgcttg 1750
gagtgtgctg ctgtggggca ccagccccc cagatagcct ggcagaagga 1800
tgggggcaca gacttcccag ctgcacggga gagacgcatg catgtgatgc 1850
ccgaggatga cgtgttcttt atcgtggatg tgaagataga ggacattggg 1900
gtatacagct gcacagctca gaacagtgca ggaagtattt cagcaaatgc 1950
aactctgact gtcctagaaa caccatcatt tttgcggcca ctgttgacc 2000
gaactgtaac caagggagaa acagccgtcc tacagtgcac tgctggagga 2050
agccctcccc cttaaactgaa ctggaccaa gatgatagcc cattggtggt 2100
aaccgagagg cacttttttg cagcaggcaa tcagcttctg attattgtgg 2150
actcagatgt cagtgatgct gggaaataca catgtgagat gtctaacc 2200
cttggcactg agagaggaaa cgtgcgcctc agtgtgatcc ccactccaac 2250

ctgcgactcc cctcagatga cagccccatc gttagacgat gacggatggg 2300
 ccactgtggg tgctgtgatc atagccgtgg tttgctgtgt ggtgggcacg 2350
 tcactcgtgt ggggtggcat catataccac acaaggcgga ggaatgaaga 2400
 ttgcagcatt accaacacag atgagaccaa cttgccagca gatattccta 2450
 gttatttgtc atctcagga acgtagctg acaggcagga tgggtacgtg 2500
 tcttcagaaa gtggaagcca ccaccagttt gtcacatctt cagggtgctgg 2550
 atttttctta ccacaacatg acagtagtgg gacctgccat attgacaata 2600
 gcagtgaagc tgatgtggaa gctgccacag atctgttctt ttgtccgttt 2650
 ttgggatcca caggccctat gtatttgaag ggaaatgtgt atggctcaga 2700
 tccttttgaa acatatcata caggttgcag tcctgaccca agaacagttt 2750
 taatggacca ctatgagccc agttacataa agaaaaagga gtgctacca 2800
 tgttctcatc cttcagaaga atcctgcgaa cggagcttca gtaatatatc 2850
 gtggccttca catgtgagga agctacttaa cactagttac tctcacaatg 2900
 aaggacctgg aatgaaaaat ctgtgtctaa acaagtcctc tttagatttt 2950
 agtgcaaate cagagccagc gtcggttgcc tcgagtaatt ctttcatggg 3000
 tacctttgga aaagctctca ggagacctca cctagatgcc tattcaagct 3050
 ttggacagcc atcagattgt cagccaagag ctttttattt gaaagctcat 3100
 tcttccccag acttggactc tgggtcagag gaagatggga aagaaaggac 3150
 agattttcag gaagaaaatc acatttgtac ctttaaacag acttttagaaa 3200
 actacaggac tccaaatttt cagtcttatg acttggacac atagactgaa 3250
 tgagacccaa ggaaaagctt aacatactac ctcaagtga cttttattta 3300
 aaagagagag aatcttatgt tttttaaatg gagttatgaa ttttaaaagg 3350
 ataaaaatgc tttatttata cagatgaacc aaaattacaa aaagttatga 3400
 aaatttttat actgggaatg atgctcatat aagaatacct ttttaaaacta 3450
 ttttttaact ttgttttatg caaaaaagta tcttacgtaa attaatagata 3500
 taaatcatga ttattttatg tatttttata atgccagatt tctttttatg 3550
 gaaaatgagt tactaaagca ttttaataaa tacctgcctt gtaccatttt 3600
 ttaaatagaa gttacttcat tatattttgc acattatatt taataaaatg 3650
 tgtcaatttg aa 3662

<210> 290

<211> 1059
 <212> PRT
 <213> Homo Sapien

<400> 290

Met	Val	Asp	Val	Leu	Leu	Leu	Phe	Ser	Leu	Cys	Leu	Leu	Phe	His	1	5	10	15
Ile	Ser	Arg	Pro	Asp	Leu	Ser	His	Asn	Arg	Leu	Ser	Phe	Ile	Lys	20	25	30	
Ala	Ser	Ser	Met	Ser	His	Leu	Gln	Ser	Leu	Arg	Glu	Val	Lys	Leu	35	40	45	
Asn	Asn	Asn	Glu	Leu	Glu	Thr	Ile	Pro	Asn	Leu	Gly	Pro	Val	Ser	50	55	60	
Ala	Asn	Ile	Thr	Leu	Leu	Ser	Leu	Ala	Gly	Asn	Arg	Ile	Val	Glu	65	70	75	
Ile	Leu	Pro	Glu	His	Leu	Lys	Glu	Phe	Gln	Ser	Leu	Glu	Thr	Leu	80	85	90	
Asp	Leu	Ser	Ser	Asn	Asn	Ile	Ser	Glu	Leu	Gln	Thr	Ala	Phe	Pro	95	100	105	
Ala	Leu	Gln	Leu	Lys	Tyr	Leu	Tyr	Leu	Asn	Ser	Asn	Arg	Val	Thr	110	115	120	
Ser	Met	Glu	Pro	Gly	Tyr	Phe	Asp	Asn	Leu	Ala	Asn	Thr	Leu	Leu	125	130	135	
Val	Leu	Lys	Leu	Asn	Arg	Asn	Arg	Ile	Ser	Ala	Ile	Pro	Pro	Lys	140	145	150	
Met	Phe	Lys	Leu	Pro	Gln	Leu	Gln	His	Leu	Glu	Leu	Asn	Arg	Asn	155	160	165	
Lys	Ile	Lys	Asn	Val	Asp	Gly	Leu	Thr	Phe	Gln	Gly	Leu	Gly	Ala	170	175	180	
Leu	Lys	Ser	Leu	Lys	Met	Gln	Arg	Asn	Gly	Val	Thr	Lys	Leu	Met	185	190	195	
Asp	Gly	Ala	Phe	Trp	Gly	Leu	Ser	Asn	Met	Glu	Ile	Leu	Gln	Leu	200	205	210	
Asp	His	Asn	Asn	Leu	Thr	Glu	Ile	Thr	Lys	Gly	Trp	Leu	Tyr	Gly	215	220	225	
Leu	Leu	Met	Leu	Gln	Glu	Leu	His	Leu	Ser	Gln	Asn	Ala	Ile	Asn	230	235	240	
Arg	Ile	Ser	Pro	Asp	Ala	Trp	Glu	Phe	Cys	Gln	Lys	Leu	Ser	Glu	245	250	255	
Leu	Asp	Leu	Thr	Phe	Asn	His	Leu	Ser	Arg	Leu	Asp	Asp	Ser	Ser	260	265	270	

Phe	Leu	Gly	Leu	Ser	Leu	Leu	Asn	Thr	Leu	His	Ile	Gly	Asn	Asn	
				275					280					285	
Arg	Val	Ser	Tyr	Ile	Ala	Asp	Cys	Ala	Phe	Arg	Gly	Leu	Ser	Ser	
				290					295					300	
Leu	Lys	Thr	Leu	Asp	Leu	Lys	Asn	Asn	Glu	Ile	Ser	Trp	Thr	Ile	
				305					310					315	
Glu	Asp	Met	Asn	Gly	Ala	Phe	Ser	Gly	Leu	Asp	Lys	Leu	Arg	Arg	
				320					325					330	
Leu	Ile	Leu	Gln	Gly	Asn	Arg	Ile	Arg	Ser	Ile	Thr	Lys	Lys	Ala	
				335					340					345	
Phe	Thr	Gly	Leu	Asp	Ala	Leu	Glu	His	Leu	Asp	Leu	Ser	Asp	Asn	
				350					355					360	
Ala	Ile	Met	Ser	Leu	Gln	Gly	Asn	Ala	Phe	Ser	Gln	Met	Lys	Lys	
				365					370					375	
Leu	Gln	Gln	Leu	His	Leu	Asn	Thr	Ser	Ser	Leu	Leu	Cys	Asp	Cys	
				380					385					390	
Gln	Leu	Lys	Trp	Leu	Pro	Gln	Trp	Val	Ala	Glu	Asn	Asn	Phe	Gln	
				395					400					405	
Ser	Phe	Val	Asn	Ala	Ser	Cys	Ala	His	Pro	Gln	Leu	Leu	Lys	Gly	
				410					415					420	
Arg	Ser	Ile	Phe	Ala	Val	Ser	Pro	Asp	Gly	Phe	Val	Cys	Asp	Asp	
				425					430					435	
Phe	Pro	Lys	Pro	Gln	Ile	Thr	Val	Gln	Pro	Glu	Thr	Gln	Ser	Ala	
				440					445					450	
Ile	Lys	Gly	Ser	Asn	Leu	Ser	Phe	Ile	Cys	Ser	Ala	Ala	Ser	Ser	
				455					460					465	
Ser	Asp	Ser	Pro	Met	Thr	Phe	Ala	Trp	Lys	Lys	Asp	Asn	Glu	Leu	
				470					475					480	
Leu	His	Asp	Ala	Glu	Met	Glu	Asn	Tyr	Ala	His	Leu	Arg	Ala	Gln	
				485					490					495	
Gly	Gly	Glu	Val	Met	Glu	Tyr	Thr	Thr	Ile	Leu	Arg	Leu	Arg	Glu	
				500					505					510	
Val	Glu	Phe	Ala	Ser	Glu	Gly	Lys	Tyr	Gln	Cys	Val	Ile	Ser	Asn	
				515					520					525	
His	Phe	Gly	Ser	Ser	Tyr	Ser	Val	Lys	Ala	Lys	Leu	Thr	Val	Asn	
				530					535					540	
Met	Leu	Pro	Ser	Phe	Thr	Lys	Thr	Pro	Met	Asp	Leu	Thr	Ile	Arg	
				545					550					555	
Ala	Gly	Ala	Met	Ala	Arg	Leu	Glu	Cys	Ala	Ala	Val	Gly	His	Pro	
				560					565					570	

Ala	Pro	Gln	Ile	Ala	Trp	Gln	Lys	Asp	Gly	Gly	Thr	Asp	Phe	Pro	
				575					580					585	
Ala	Ala	Arg	Glu	Arg	Arg	Met	His	Val	Met	Pro	Glu	Asp	Asp	Val	
				590					595					600	
Phe	Phe	Ile	Val	Asp	Val	Lys	Ile	Glu	Asp	Ile	Gly	Val	Tyr	Ser	
				605					610					615	
Cys	Thr	Ala	Gln	Asn	Ser	Ala	Gly	Ser	Ile	Ser	Ala	Asn	Ala	Thr	
				620					625					630	
Leu	Thr	Val	Leu	Glu	Thr	Pro	Ser	Phe	Leu	Arg	Pro	Leu	Leu	Asp	
				635					640					645	
Arg	Thr	Val	Thr	Lys	Gly	Glu	Thr	Ala	Val	Leu	Gln	Cys	Ile	Ala	
				650					655					660	
Gly	Gly	Ser	Pro	Pro	Pro	Lys	Leu	Asn	Trp	Thr	Lys	Asp	Asp	Ser	
				665					670					675	
Pro	Leu	Val	Val	Thr	Glu	Arg	His	Phe	Phe	Ala	Ala	Gly	Asn	Gln	
				680					685					690	
Leu	Leu	Ile	Ile	Val	Asp	Ser	Asp	Val	Ser	Asp	Ala	Gly	Lys	Tyr	
				695					700					705	
Thr	Cys	Glu	Met	Ser	Asn	Thr	Leu	Gly	Thr	Glu	Arg	Gly	Asn	Val	
				710					715					720	
Arg	Leu	Ser	Val	Ile	Pro	Thr	Pro	Thr	Cys	Asp	Ser	Pro	Gln	Met	
				725					730					735	
Thr	Ala	Pro	Ser	Leu	Asp	Asp	Asp	Gly	Trp	Ala	Thr	Val	Gly	Val	
				740					745					750	
Val	Ile	Ile	Ala	Val	Val	Cys	Cys	Val	Val	Gly	Thr	Ser	Leu	Val	
				755					760					765	
Trp	Val	Val	Ile	Ile	Tyr	His	Thr	Arg	Arg	Arg	Asn	Glu	Asp	Cys	
				770					775					780	
Ser	Ile	Thr	Asn	Thr	Asp	Glu	Thr	Asn	Leu	Pro	Ala	Asp	Ile	Pro	
				785					790					795	
Ser	Tyr	Leu	Ser	Ser	Gln	Gly	Thr	Leu	Ala	Asp	Arg	Gln	Asp	Gly	
				800					805					810	
Tyr	Val	Ser	Ser	Glu	Ser	Gly	Ser	His	His	Gln	Phe	Val	Thr	Ser	
				815					820					825	
Ser	Gly	Ala	Gly	Phe	Phe	Leu	Pro	Gln	His	Asp	Ser	Ser	Gly	Thr	
				830					835					840	
Cys	His	Ile	Asp	Asn	Ser	Ser	Glu	Ala	Asp	Val	Glu	Ala	Ala	Thr	
				845					850					855	
Asp	Leu	Phe	Leu	Cys	Pro	Phe	Leu	Gly	Ser	Thr	Gly	Pro	Met	Tyr	

	860		865		870
Leu Lys Gly Asn	Val Tyr Gly Ser Asp	Pro Phe Glu Thr Tyr His			
	875	880		885	
Thr Gly Cys Ser	Pro Asp Pro Arg Thr	Val Leu Met Asp His Tyr			
	890	895		900	
Glu Pro Ser Tyr	Ile Lys Lys Lys Glu	Cys Tyr Pro Cys Ser His			
	905	910		915	
Pro Ser Glu Glu	Ser Cys Glu Arg Ser	Phe Ser Asn Ile Ser Trp			
	920	925		930	
Pro Ser His Val	Arg Lys Leu Leu Asn	Thr Ser Tyr Ser His Asn			
	935	940		945	
Glu Gly Pro Gly	Met Lys Asn Leu Cys	Leu Asn Lys Ser Ser Leu			
	950	955		960	
Asp Phe Ser Ala	Asn Pro Glu Pro Ala	Ser Val Ala Ser Ser Asn			
	965	970		975	
Ser Phe Met Gly	Thr Phe Gly Lys Ala	Leu Arg Arg Pro His Leu			
	980	985		990	
Asp Ala Tyr Ser	Ser Phe Gly Gln Pro	Ser Asp Cys Gln Pro Arg			
	995	1000		1005	
Ala Phe Tyr Leu	Lys Ala His Ser Ser	Pro Asp Leu Asp Ser Gly			
	1010	1015		1020	
Ser Glu Glu Asp	Gly Lys Glu Arg Thr	Asp Phe Gln Glu Glu Asn			
	1025	1030		1035	
His Ile Cys Thr	Phe Lys Gln Thr Leu	Glu Asn Tyr Arg Thr Pro			
	1040	1045		1050	
Asn Phe Gln Ser	Tyr Asp Leu Asp Thr				
	1055				

<210> 291
 <211> 2906
 <212> DNA
 <213> Homo Sapien

<400> 291
 ggggagagga attgaccatg taaaaggaga cttttttttt tgggtggtggt 50
 ggctgttggtg tgccttgcaa aaatgaagga tgcaggacgc agctttctcc 100
 tggaaccgaa cgcaatggat aaactgattg tgcaagagag aaggaagaac 150
 gaagctttttt cttgtgagcc ctggatctta acacaaatgt gtatatgtgc 200
 acacagggag cattcaagaa tgaaataaac cagagttaga cccgcggggg 250
 ttggtgtgtt ctgacataaa taaataatct taaagcagct gttcccctcc 300
 ccaccccccaa aaaaaaggat gattggaaat gaagaaccga ggattcacia 350

agaaaaaagt atgttcattt ttctctataa aggagaaagt gagccaagga 400
 gatatttttg gaatgaaaag tttggggctt ttttagtaaa gtaaagaact 450
 ggtgtggtgg tgttttcctt tctttttgaa tttcccacaa gaggagagga 500
 aattaataat acatctgcaa agaaatttca gagaagaaaa gttgaccgcg 550
 gcagattgag gcattgattg ggggagagaa accagcagag cacagttgga 600
 tttgtgccta tgttgactaa aattgacgga taattgcagt tggatttttc 650
 ttcatacaacc tccttttttt taaattttta ttcttttttg tatcaagatc 700
 atgcgttttc tcttgttctt aaccacctgg atttccatct ggatgttgct 750
 gtgatcagtc tgaaatacaa ctgtttgaat tccagaagga ccaacaccag 800
 ataaattatg aatgttgaac aagatgacct tacatccaca gcagataatg 850
 ataggtccta gggttaacag ggcctattt gacccctgc ttgtggtgct 900
 gctggctctt caacttcttg tgggtggctgg tctgggtgcgg gctcagacct 950
 gcccttctgt gtgctcctgc agcaaccagt tcagcaagggt gattttgtgtt 1000
 cggaaaaacc tgcgtgaggt tccggatggc atctccacca acacacggct 1050
 gctgaacctc catgagaacc aaatccagat catcaaagt aacagcttca 1100
 agcacttgag gcacttgga atcctacagt tgagttaggaa ccatatcaga 1150
 accattgaaa ttggggcttt caatggctcg gcgaacctca aactcttgga 1200
 actctttgac aatcgtctta ctaccatccc gaatggagct tttgtatact 1250
 tgtctaaact gaaggagctc tggttgcgaa acaaccccat tgaaagcatc 1300
 ccttcttatg cttttaacag aattccttct ttgcgcgcac tagacttagg 1350
 ggaattgaaa agactttcat acatctcaga aggtgccttt gaaggctctgt 1400
 ccaacttgag gtatttgaac cttgccatgt gcaaccttcg ggaaatccct 1450
 aacctcacac cgctcataaa actagatgag ctggatcttt ctgggaatca 1500
 tttatctgcc atcaggcctg gctctttcca gggtttgatg caccttcaaa 1550
 aactgtggat gatacagtcc cagattcaag tgattgaacg gaatgccttt 1600
 gacaaccttc agtcactagt ggagatcaac ctggcacaca ataactaac 1650
 attactgcct catgacctct tcactccctt gcatcatcta gagcggatac 1700
 atttacatca caaccttgg aactgtaact gtgacatact gtggctcagc 1750
 tgggtggataa aagacatggc ccctcgaac acagcttggt gtgcccgggtg 1800
 taacactcct cccaatctaa aggggaggta cattggagag ctgcaccaga 1850

attacttcac atgctatgct ccggtgattg tggagccccc tgcagacctc 1900
 aatgtcactg aaggcatggc agctgagctg aaatgtcggg cctccacatc 1950
 cctgacatct gtatcttgga ttactccaaa tggaacagtc atgacacatg 2000
 gggcgtacaa agtgcgata gctgtgctca gtgatggtac gttaaatttc 2050
 acaaatgtaa ctgtgcaaga tacaggcatg tacacatgta tggtagtaa 2100
 ttccgttggg aatactactg cttcagccac cctgaatgtt actgcagcaa 2150
 ccactactcc tttctcttac ttttcaaccg tcacagtaga gactatggaa 2200
 ccgtctcagg atgaggcacg gaccacagat aacaatgtgg gtcccactcc 2250
 agtggtcgac tgggagacca ccaatgtgac cacctctctc acaccacaga 2300
 gcacaagggtc gacagagaaa accttcacca tcccagtgac tgatataaac 2350
 agtgggatcc caggaattga tgaggtcatg aagactacca aaatcatcat 2400
 tgggtgtttt gtggccatca cactcatggc tgcagtgatg ctggtcattt 2450
 tctacaagat gaggaagcag caccatcggc aaaaccatca cgccccaaca 2500
 aggactgttg aaattattaa tgtggatgat gagattacgg gagacacacc 2550
 catggaaagc cacctgcccc tgctgtctat cgagcatgag cacctaaatc 2600
 actataactc atacaaatct cccttcaacc acacaacaac agttaacaca 2650
 ataaattcaa tacacagttc agtgcataaa ccgttattga tccgaatgaa 2700
 ctctaaagac aatgtacaag agactcaaatt ctaaaacatt tacagagtta 2750
 caaaaaacaa acaatcaaaa aaaaagacag tttattaaaa atgacacaaa 2800
 tgactgggct aaatctactg tttcaaaaaa gtgtctttac aaaaaaacia 2850
 aaaagaaaag aaattttattt attaaaaatt ctattgtgat ctaaagcaga 2900
 caaaaa 2906

<210> 292

<211> 640

<212> PRT

<213> Homo Sapien

<400> 292

Met	Leu	Asn	Lys	Met	Thr	Leu	His	Pro	Gln	Gln	Ile	Met	Ile	Gly
1				5					10					15
Pro	Arg	Phe	Asn	Arg	Ala	Leu	Phe	Asp	Pro	Leu	Leu	Val	Val	Leu
				20					25					30
Leu	Ala	Leu	Gln	Leu	Leu	Val	Val	Ala	Gly	Leu	Val	Arg	Ala	Gln
				35					40					45

Thr	Cys	Pro	Ser	Val	Cys	Ser	Cys	Ser	Asn	Gln	Phe	Ser	Lys	Val		50	55	60
Ile	Cys	Val	Arg	Lys	Asn	Leu	Arg	Glu	Val	Pro	Asp	Gly	Ile	Ser		65	70	75
Thr	Asn	Thr	Arg	Leu	Leu	Asn	Leu	His	Glu	Asn	Gln	Ile	Gln	Ile		80	85	90
Ile	Lys	Val	Asn	Ser	Phe	Lys	His	Leu	Arg	His	Leu	Glu	Ile	Leu		95	100	105
Gln	Leu	Ser	Arg	Asn	His	Ile	Arg	Thr	Ile	Glu	Ile	Gly	Ala	Phe		110	115	120
Asn	Gly	Leu	Ala	Asn	Leu	Asn	Thr	Leu	Glu	Leu	Phe	Asp	Asn	Arg		125	130	135
Leu	Thr	Thr	Ile	Pro	Asn	Gly	Ala	Phe	Val	Tyr	Leu	Ser	Lys	Leu		140	145	150
Lys	Glu	Leu	Trp	Leu	Arg	Asn	Asn	Pro	Ile	Glu	Ser	Ile	Pro	Ser		155	160	165
Tyr	Ala	Phe	Asn	Arg	Ile	Pro	Ser	Leu	Arg	Arg	Leu	Asp	Leu	Gly		170	175	180
Glu	Leu	Lys	Arg	Leu	Ser	Tyr	Ile	Ser	Glu	Gly	Ala	Phe	Glu	Gly		185	190	195
Leu	Ser	Asn	Leu	Arg	Tyr	Leu	Asn	Leu	Ala	Met	Cys	Asn	Leu	Arg		200	205	210
Glu	Ile	Pro	Asn	Leu	Thr	Pro	Leu	Ile	Lys	Leu	Asp	Glu	Leu	Asp		215	220	225
Leu	Ser	Gly	Asn	His	Leu	Ser	Ala	Ile	Arg	Pro	Gly	Ser	Phe	Gln		230	235	240
Gly	Leu	Met	His	Leu	Gln	Lys	Leu	Trp	Met	Ile	Gln	Ser	Gln	Ile		245	250	255
Gln	Val	Ile	Glu	Arg	Asn	Ala	Phe	Asp	Asn	Leu	Gln	Ser	Leu	Val		260	265	270
Glu	Ile	Asn	Leu	Ala	His	Asn	Asn	Leu	Thr	Leu	Leu	Pro	His	Asp		275	280	285
Leu	Phe	Thr	Pro	Leu	His	His	Leu	Glu	Arg	Ile	His	Leu	His	His		290	295	300
Asn	Pro	Trp	Asn	Cys	Asn	Cys	Asp	Ile	Leu	Trp	Leu	Ser	Trp	Trp		305	310	315
Ile	Lys	Asp	Met	Ala	Pro	Ser	Asn	Thr	Ala	Cys	Cys	Ala	Arg	Cys		320	325	330
Asn	Thr	Pro	Pro	Asn	Leu	Lys	Gly	Arg	Tyr	Ile	Gly	Glu	Leu	Asp		335	340	345

Gln	Asn	Tyr	Phe	Thr	Cys	Tyr	Ala	Pro	Val	Ile	Val	Glu	Pro	Pro	
				350					355					360	
Ala	Asp	Leu	Asn	Val	Thr	Glu	Gly	Met	Ala	Ala	Glu	Leu	Lys	Cys	
				365					370					375	
Arg	Ala	Ser	Thr	Ser	Leu	Thr	Ser	Val	Ser	Trp	Ile	Thr	Pro	Asn	
				380					385					390	
Gly	Thr	Val	Met	Thr	His	Gly	Ala	Tyr	Lys	Val	Arg	Ile	Ala	Val	
				395					400					405	
Leu	Ser	Asp	Gly	Thr	Leu	Asn	Phe	Thr	Asn	Val	Thr	Val	Gln	Asp	
				410					415					420	
Thr	Gly	Met	Tyr	Thr	Cys	Met	Val	Ser	Asn	Ser	Val	Gly	Asn	Thr	
				425					430					435	
Thr	Ala	Ser	Ala	Thr	Leu	Asn	Val	Thr	Ala	Ala	Thr	Thr	Thr	Pro	
				440					445					450	
Phe	Ser	Tyr	Phe	Ser	Thr	Val	Thr	Val	Glu	Thr	Met	Glu	Pro	Ser	
				455					460					465	
Gln	Asp	Glu	Ala	Arg	Thr	Thr	Asp	Asn	Asn	Val	Gly	Pro	Thr	Pro	
				470					475					480	
Val	Val	Asp	Trp	Glu	Thr	Thr	Asn	Val	Thr	Thr	Ser	Leu	Thr	Pro	
				485					490					495	
Gln	Ser	Thr	Arg	Ser	Thr	Glu	Lys	Thr	Phe	Thr	Ile	Pro	Val	Thr	
				500					505					510	
Asp	Ile	Asn	Ser	Gly	Ile	Pro	Gly	Ile	Asp	Glu	Val	Met	Lys	Thr	
				515					520					525	
Thr	Lys	Ile	Ile	Ile	Gly	Cys	Phe	Val	Ala	Ile	Thr	Leu	Met	Ala	
				530					535					540	
Ala	Val	Met	Leu	Val	Ile	Phe	Tyr	Lys	Met	Arg	Lys	Gln	His	His	
				545					550					555	
Arg	Gln	Asn	His	His	Ala	Pro	Thr	Arg	Thr	Val	Glu	Ile	Ile	Asn	
				560					565					570	
Val	Asp	Asp	Glu	Ile	Thr	Gly	Asp	Thr	Pro	Met	Glu	Ser	His	Leu	
				575					580					585	
Pro	Met	Pro	Ala	Ile	Glu	His	Glu	His	Leu	Asn	His	Tyr	Asn	Ser	
				590					595					600	
Tyr	Lys	Ser	Pro	Phe	Asn	His	Thr	Thr	Thr	Val	Asn	Thr	Ile	Asn	
				605					610					615	
Ser	Ile	His	Ser	Ser	Val	His	Glu	Pro	Leu	Leu	Ile	Arg	Met	Asn	
				620					625					630	
Ser	Lys	Asp	Asn	Val	Gln	Glu	Thr	Gln	Ile						

<210> 293
 <211> 4053
 <212> DNA
 <213> Homo Sapien

<400> 293
 agccgacgct gctcaagctg caactctgtt gcagttggca gttcttttcg 50
 gtttccctcc tgctgtttgg gggcatgaaa gggcttcgcc gccgggagta 100
 aaagaaggaa ttgaccgggc agcgcgaggg aggagcgcgc acgcgaccgc 150
 gagggcgggc gtgcaccctc ggctggaagt ttgtgccggg ccccgagcgc 200
 gcgcccggctg ggagcttcgg gtagagacct aggccgctgg accgcgatga 250
 gcgcgcccag cctccgtgcg cgcgcgcggg gggtggggct gctgctgtgc 300
 gcgggtgctgg ggcgcgctgg ccgggtccgac agcggcggtc gcgggggaact 350
 cgggcagccc tctggggtag ccgcgagcgc cccatgcccc actacctgcc 400
 gctgcctcgg ggacctgctg gactgcagtc gtaagcggct agcgcgtctt 450
 cccgagccac tcccgtcctg ggtcgctcgg ctggacttaa gtcacaacag 500
 attatctttc atcaaggcaa gttccatgag ccaccttcaa agccttcgag 550
 aagtgaact gaacaacaat gaattggaga ccattccaaa tctgggacca 600
 gtctcggcaa atattacact tctctccttg gctggaaaca ggattgttga 650
 aatactccct gaacatctga aagagtttca gtcccttgaa acttttgacc 700
 ttagcagcaa caatatttca gagctccaaa ctgcatttcc agccctacag 750
 ctcaaataatc tgtatctcaa cagcaaccga gtcacatcaa tggaacctgg 800
 gtattttgac aatttgacca acacactcct tgtgttaaag ctgaacagga 850
 accgaatctc agctatccca cccaagatgt ttaaactgcc ccaactgcaa 900
 catctcgaat tgaaccgaaa caagattaaa aatgtagatg gactgacatt 950
 ccaaggcctt ggtgctctga agtctctgaa aatgcaaaga aatggagtaa 1000
 cgaaacttat ggatggagct ttttgggggc tgagcaacat ggaaattttg 1050
 cagctggacc ataacaacct aacagagatt accaaaggct ggctttacgg 1100
 cttgctgatg ctgcaggaac ttcattctcag ccaaaatgcc atcaacagga 1150
 tcagccctga tgcctgggag ttctgccaga agctcagtga gctggaccta 1200
 actttcaatc acttatcaag gttagatgat tcaagcttcc ttggcctaag 1250
 cttactaaat aactgcaca ttgggaacaa cagagtcagc tacattgctg 1300

attgtgcctt ccgggggcctt tccagtttaa agactttgga tctgaagaac 1350
 aatgaaattt cctggactat tgaagacatg aatgggtgctt tctctgggct 1400
 tgacaaactg aggcgactga tactccaagg aaatcggatc cgttctatta 1450
 ctaaaaaagc cttcactggt ttggatgcat tggagcatct agacctgagt 1500
 gacaacgcaa tcatgtcttt acaaggcaat gcattttcac aaatgaagaa 1550
 actgcaacaa ttgcatttaa atacatcaag ctttttgtgc gattgccagc 1600
 taaaatggct ccacagtggt gtggcgga aaactttca gagctttgta 1650
 aatgccagtt gtgcccattc tcagctgcta aaaggaagaa gcatttttgc 1700
 tgttagccca gatggctttg tgtgtgatga ttttcccaa cccagatca 1750
 cggttcagcc agaaacacag tcggcaataa aaggttccaa tttgagtttc 1800
 atctgctcag ctgccagcag cagtgaattc ccaatgactt ttgcttgga 1850
 aaaagacaat gaactactgc atgatgctga aatggaaaat tatgcacacc 1900
 tccgggcccc aggtggcgag gtgatggagt ataccaccat ccttcggctg 1950
 cgcgaggtgg aatttgccag tgaggggaaa tatcagtgtg tcatctcaa 2000
 tcactttggt tcactctact ctgtcaaagc caagcttaca gtaaatatgc 2050
 ttccctcatt caccaagacc cccatggatc tcaccatccg agctggggcc 2100
 atggcacgct tggagtgtgc tgctgtgggg caccagccc cccagatagc 2150
 ctggcagaag gatgggggca cagacttccc agctgcacgg gagagacgca 2200
 tgcattgtat gcccagaggat gacgtgttct ttatcgtgga tgtgaagata 2250
 gaggacattg gggatatacag ctgcacagct cagaacagtg caggaagtat 2300
 ttcagcaaat gcaactctga ctgtcctaga aacaccatca tttttgcggc 2350
 cactgttgga ccgaactgta accaaggag aaacagccgt cctacagtgc 2400
 attgctggag gaagccctcc ccctaaactg aactggacca aagatgatag 2450
 cccattggtg gtaaccgaga ggcacttttt tgcagcaggc aatcagcttc 2500
 tgattattgt ggactcagat gtcagtgatg ctgggaaata cacatgtgag 2550
 atgtctaaca cccttggcac tgagagagga aacgtgcgcc tcagtgtgat 2600
 cccactcca acctgcgact cccctcagat gacagcccca tcgttagacg 2650
 atgacggatg ggccactgtg ggtgtcgtga tcatagccgt ggtttgctgt 2700
 gtgggtgggca cgtcactcgt gtgggtggtc atcatatacc acacaaggcg 2750

gaggaatgaa gattgcagca ttaccaacac agatgagacc aacttgccag 2800
cagatattcc tagttatttg tcatctcagg gaacgttagc tgacaggcag 2850
gatgggtacg tgtcttcaga aagtggaagc caccaccagt ttgtcacatc 2900
ttcaggtgct ggatttttct taccacaaca tgacagtagt gggacctgcc 2950
atattgacaa tagcagtga gctgatgtgg aagctgccac agatctgttc 3000
ctttgtccgt ttttgggac caccaggcct atgtatttga agggaaatgt 3050
gtatggctca gatccttttg aaacatatca tacaggttgc agtcctgacc 3100
caagaacagt tttaatggac cactatgagc ccagttacat aaagaaaaag 3150
gagtgtacc catgttctca tccttcagaa gaatcctgcg aacggagctt 3200
cagtaatata tcgtggcctt cacatgtgag gaagctactt aacactagtt 3250
actctcacia tgaaggacct ggaatgaaaa atctgtgtct aaacaagtcc 3300
tcttttagatt ttagtgcaaa tccagagcca gcgtcggttg cctcgagtaa 3350
ttctttcatg ggtacctttg gaaaagctct caggagacct cacctagatg 3400
cctattcaag ctttggacag ccatcagatt gtcagccaag agccttttat 3450
ttgaaagctc attcttcccc agacttggac tctgggtcag aggaagatgg 3500
gaaagaaagg acagattttc aggaagaaaa tcacatttgt acctttaaac 3550
agactttaga aaactacagg actccaaatt ttcagtctta tgacttggac 3600
acatagactg aatgagacca aaggaaaagc ttaacatact acctcaagtg 3650
aacttttatt taaaagagag agaatcttat gttttttaaa tggagtatatg 3700
aatttttaaaa ggataaaaaat gctttattta tacagatgaa ccaaaattac 3750
aaaaagttat gaaaattttt atactgggaa tgatgctcat ataagaatac 3800
ctttttaaac tattttttta ctttgtttta tgcaaaaaag tatcttacgt 3850
aaattaatga tataaatcat gattatttta tgtattttta taatgccaga 3900
tttcttttta tggaaaatga gttactaaag catttttaaat aataacctgcc 3950
ttgtaccatt ttttaaatag aagttacttc attatatattt gcacattata 4000
tttaataaaa tgtgtcaatt tgaaaaaaaa aaaaaaaaaa aaaaaaaaaa 4050
aaa 4053

<210> 294
<211> 1119
<212> PRT
<213> Homo Sapien

<400> 294

Met	Ser	Ala	Pro	Ser	Leu	Arg	Ala	Arg	Ala	Ala	Gly	Leu	Gly	Leu		1	5	10	15
Leu	Leu	Cys	Ala	Val	Leu	Gly	Arg	Ala	Gly	Arg	Ser	Asp	Ser	Gly		20	25	30	
Gly	Arg	Gly	Glu	Leu	Gly	Gln	Pro	Ser	Gly	Val	Ala	Ala	Glu	Arg		35	40	45	
Pro	Cys	Pro	Thr	Thr	Cys	Arg	Cys	Leu	Gly	Asp	Leu	Leu	Asp	Cys		50	55	60	
Ser	Arg	Lys	Arg	Leu	Ala	Arg	Leu	Pro	Glu	Pro	Leu	Pro	Ser	Trp		65	70	75	
Val	Ala	Arg	Leu	Asp	Leu	Ser	His	Asn	Arg	Leu	Ser	Phe	Ile	Lys		80	85	90	
Ala	Ser	Ser	Met	Ser	His	Leu	Gln	Ser	Leu	Arg	Glu	Val	Lys	Leu		95	100	105	
Asn	Asn	Asn	Glu	Leu	Glu	Thr	Ile	Pro	Asn	Leu	Gly	Pro	Val	Ser		110	115	120	
Ala	Asn	Ile	Thr	Leu	Leu	Ser	Leu	Ala	Gly	Asn	Arg	Ile	Val	Glu		125	130	135	
Ile	Leu	Pro	Glu	His	Leu	Lys	Glu	Phe	Gln	Ser	Leu	Glu	Thr	Leu		140	145	150	
Asp	Leu	Ser	Ser	Asn	Asn	Ile	Ser	Glu	Leu	Gln	Thr	Ala	Phe	Pro		155	160	165	
Ala	Leu	Gln	Leu	Lys	Tyr	Leu	Tyr	Leu	Asn	Ser	Asn	Arg	Val	Thr		170	175	180	
Ser	Met	Glu	Pro	Gly	Tyr	Phe	Asp	Asn	Leu	Ala	Asn	Thr	Leu	Leu		185	190	195	
Val	Leu	Lys	Leu	Asn	Arg	Asn	Arg	Ile	Ser	Ala	Ile	Pro	Pro	Lys		200	205	210	
Met	Phe	Lys	Leu	Pro	Gln	Leu	Gln	His	Leu	Glu	Leu	Asn	Arg	Asn		215	220	225	
Lys	Ile	Lys	Asn	Val	Asp	Gly	Leu	Thr	Phe	Gln	Gly	Leu	Gly	Ala		230	235	240	
Leu	Lys	Ser	Leu	Lys	Met	Gln	Arg	Asn	Gly	Val	Thr	Lys	Leu	Met		245	250	255	
Asp	Gly	Ala	Phe	Trp	Gly	Leu	Ser	Asn	Met	Glu	Ile	Leu	Gln	Leu		260	265	270	
Asp	His	Asn	Asn	Leu	Thr	Glu	Ile	Thr	Lys	Gly	Trp	Leu	Tyr	Gly		275	280	285	
Leu	Leu	Met	Leu	Gln	Glu	Leu	His	Leu	Ser	Gln	Asn	Ala	Ile	Asn		290	295	300	

Arg	Ile	Ser	Pro	Asp	Ala	Trp	Glu	Phe	Cys	Gln	Lys	Leu	Ser	Glu		305	310	315
Leu	Asp	Leu	Thr	Phe	Asn	His	Leu	Ser	Arg	Leu	Asp	Asp	Ser	Ser		320	325	330
Phe	Leu	Gly	Leu	Ser	Leu	Leu	Asn	Thr	Leu	His	Ile	Gly	Asn	Asn		335	340	345
Arg	Val	Ser	Tyr	Ile	Ala	Asp	Cys	Ala	Phe	Arg	Gly	Leu	Ser	Ser		350	355	360
Leu	Lys	Thr	Leu	Asp	Leu	Lys	Asn	Asn	Glu	Ile	Ser	Trp	Thr	Ile		365	370	375
Glu	Asp	Met	Asn	Gly	Ala	Phe	Ser	Gly	Leu	Asp	Lys	Leu	Arg	Arg		380	385	390
Leu	Ile	Leu	Gln	Gly	Asn	Arg	Ile	Arg	Ser	Ile	Thr	Lys	Lys	Ala		395	400	405
Phe	Thr	Gly	Leu	Asp	Ala	Leu	Glu	His	Leu	Asp	Leu	Ser	Asp	Asn		410	415	420
Ala	Ile	Met	Ser	Leu	Gln	Gly	Asn	Ala	Phe	Ser	Gln	Met	Lys	Lys		425	430	435
Leu	Gln	Gln	Leu	His	Leu	Asn	Thr	Ser	Ser	Leu	Leu	Cys	Asp	Cys		440	445	450
Gln	Leu	Lys	Trp	Leu	Pro	Gln	Trp	Val	Ala	Glu	Asn	Asn	Phe	Gln		455	460	465
Ser	Phe	Val	Asn	Ala	Ser	Cys	Ala	His	Pro	Gln	Leu	Leu	Lys	Gly		470	475	480
Arg	Ser	Ile	Phe	Ala	Val	Ser	Pro	Asp	Gly	Phe	Val	Cys	Asp	Asp		485	490	495
Phe	Pro	Lys	Pro	Gln	Ile	Thr	Val	Gln	Pro	Glu	Thr	Gln	Ser	Ala		500	505	510
Ile	Lys	Gly	Ser	Asn	Leu	Ser	Phe	Ile	Cys	Ser	Ala	Ala	Ser	Ser		515	520	525
Ser	Asp	Ser	Pro	Met	Thr	Phe	Ala	Trp	Lys	Lys	Asp	Asn	Glu	Leu		530	535	540
Leu	His	Asp	Ala	Glu	Met	Glu	Asn	Tyr	Ala	His	Leu	Arg	Ala	Gln		545	550	555
Gly	Gly	Glu	Val	Met	Glu	Tyr	Thr	Thr	Ile	Leu	Arg	Leu	Arg	Glu		560	565	570
Val	Glu	Phe	Ala	Ser	Glu	Gly	Lys	Tyr	Gln	Cys	Val	Ile	Ser	Asn		575	580	585
His	Phe	Gly	Ser	Ser	Tyr	Ser	Val	Lys	Ala	Lys	Leu	Thr	Val	Asn		590	595	600

Met	Leu	Pro	Ser	Phe	Thr	Lys	Thr	Pro	Met	Asp	Leu	Thr	Ile	Arg
				605					610					615
Ala	Gly	Ala	Met	Ala	Arg	Leu	Glu	Cys	Ala	Ala	Val	Gly	His	Pro
				620					625					630
Ala	Pro	Gln	Ile	Ala	Trp	Gln	Lys	Asp	Gly	Gly	Thr	Asp	Phe	Pro
				635					640					645
Ala	Ala	Arg	Glu	Arg	Arg	Met	His	Val	Met	Pro	Glu	Asp	Asp	Val
				650					655					660
Phe	Phe	Ile	Val	Asp	Val	Lys	Ile	Glu	Asp	Ile	Gly	Val	Tyr	Ser
				665					670					675
Cys	Thr	Ala	Gln	Asn	Ser	Ala	Gly	Ser	Ile	Ser	Ala	Asn	Ala	Thr
				680					685					690
Leu	Thr	Val	Leu	Glu	Thr	Pro	Ser	Phe	Leu	Arg	Pro	Leu	Leu	Asp
				695					700					705
Arg	Thr	Val	Thr	Lys	Gly	Glu	Thr	Ala	Val	Leu	Gln	Cys	Ile	Ala
				710					715					720
Gly	Gly	Ser	Pro	Pro	Pro	Lys	Leu	Asn	Trp	Thr	Lys	Asp	Asp	Ser
				725					730					735
Pro	Leu	Val	Val	Thr	Glu	Arg	His	Phe	Phe	Ala	Ala	Gly	Asn	Gln
				740					745					750
Leu	Leu	Ile	Ile	Val	Asp	Ser	Asp	Val	Ser	Asp	Ala	Gly	Lys	Tyr
				755					760					765
Thr	Cys	Glu	Met	Ser	Asn	Thr	Leu	Gly	Thr	Glu	Arg	Gly	Asn	Val
				770					775					780
Arg	Leu	Ser	Val	Ile	Pro	Thr	Pro	Thr	Cys	Asp	Ser	Pro	Gln	Met
				785					790					795
Thr	Ala	Pro	Ser	Leu	Asp	Asp	Asp	Gly	Trp	Ala	Thr	Val	Gly	Val
				800					805					810
Val	Ile	Ile	Ala	Val	Val	Cys	Cys	Val	Val	Gly	Thr	Ser	Leu	Val
				815					820					825
Trp	Val	Val	Ile	Ile	Tyr	His	Thr	Arg	Arg	Arg	Asn	Glu	Asp	Cys
				830					835					840
Ser	Ile	Thr	Asn	Thr	Asp	Glu	Thr	Asn	Leu	Pro	Ala	Asp	Ile	Pro
				845					850					855
Ser	Tyr	Leu	Ser	Ser	Gln	Gly	Thr	Leu	Ala	Asp	Arg	Gln	Asp	Gly
				860					865					870
Tyr	Val	Ser	Ser	Glu	Ser	Gly	Ser	His	His	Gln	Phe	Val	Thr	Ser
				875					880					885
Ser	Gly	Ala	Gly	Phe	Phe	Leu	Pro	Gln	His	Asp	Ser	Ser	Gly	Thr

890										895					900				
Cys	His	Ile	Asp	Asn	Ser	Ser	Glu	Ala	Asp	Val	Glu	Ala	Ala	Thr					
				905					910					915					
Asp	Leu	Phe	Leu	Cys	Pro	Phe	Leu	Gly	Ser	Thr	Gly	Pro	Met	Tyr					
				920					925					930					
Leu	Lys	Gly	Asn	Val	Tyr	Gly	Ser	Asp	Pro	Phe	Glu	Thr	Tyr	His					
				935					940					945					
Thr	Gly	Cys	Ser	Pro	Asp	Pro	Arg	Thr	Val	Leu	Met	Asp	His	Tyr					
				950					955					960					
Glu	Pro	Ser	Tyr	Ile	Lys	Lys	Lys	Glu	Cys	Tyr	Pro	Cys	Ser	His					
				965					970					975					
Pro	Ser	Glu	Glu	Ser	Cys	Glu	Arg	Ser	Phe	Ser	Asn	Ile	Ser	Trp					
				980					985					990					
Pro	Ser	His	Val	Arg	Lys	Leu	Leu	Asn	Thr	Ser	Tyr	Ser	His	Asn					
				995					1000					1005					
Glu	Gly	Pro	Gly	Met	Lys	Asn	Leu	Cys	Leu	Asn	Lys	Ser	Ser	Leu					
				1010					1015					1020					
Asp	Phe	Ser	Ala	Asn	Pro	Glu	Pro	Ala	Ser	Val	Ala	Ser	Ser	Asn					
				1025					1030					1035					
Ser	Phe	Met	Gly	Thr	Phe	Gly	Lys	Ala	Leu	Arg	Arg	Pro	His	Leu					
				1040					1045					1050					
Asp	Ala	Tyr	Ser	Ser	Phe	Gly	Gln	Pro	Ser	Asp	Cys	Gln	Pro	Arg					
				1055					1060					1065					
Ala	Phe	Tyr	Leu	Lys	Ala	His	Ser	Ser	Pro	Asp	Leu	Asp	Ser	Gly					
				1070					1075					1080					
Ser	Glu	Glu	Asp	Gly	Lys	Glu	Arg	Thr	Asp	Phe	Gln	Glu	Glu	Asn					
				1085					1090					1095					
His	Ile	Cys	Thr	Phe	Lys	Gln	Thr	Leu	Glu	Asn	Tyr	Arg	Thr	Pro					
				1100					1105					1110					
Asn	Phe	Gln	Ser	Tyr	Asp	Leu	Asp	Thr											
				1115															

<210> 295

<211> 18

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Oligonucleotide Probe

<400> 295

ggaaccgaat ctcagcta 18

<210> 296

<211> 19
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic Oligonucleotide Probe

<400> 296
cctaaactga actggacca 19

<210> 297
<211> 19
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic Oligonucleotide Probe

<400> 297
ggctggagac actgaacct 19

<210> 298
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic Oligonucleotide Probe

<400> 298
acagctgcac agctcagaac agtg 24

<210> 299
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic Oligonucleotide Probe

<400> 299
cattcccagt ataaaaatth tc 22

<210> 300
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic Oligonucleotide Probe

<400> 300
gggtcttggt gaatgagg 18

<210> 301
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
 <223> Synthetic Oligonucleotide Probe

 <400> 301
 gtgcctctcg gttaccacca atgg 24

 <210> 302
 <211> 50
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic Oligonucleotide Probe

 <400> 302
 gcggccactg ttggaccgaa ctgtaaccaa gggagaaaca gccgtcctac 50

 <210> 303
 <211> 28
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic Oligonucleotide Probe

 <400> 303
 gcctttgaca accttcagtc actagtgg 28

 <210> 304
 <211> 24
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic Oligonucleotide Probe

 <400> 304
 ccccatgtgt ccatgactgt tccc 24

 <210> 305
 <211> 45
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic Oligonucleotide Probe

 <400> 305
 tactgcctca tgacctcttc actcccttgc atcatccttag agcgg 45

 <210> 306
 <211> 24
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic Oligonucleotide Probe

 <400> 306

actccaagga aatcggatcc gttc 24

<210> 307
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 307
 ttagcagctg aggatgggca caac 24

<210> 308
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic Oligonucleotide Probe

<400> 308
 actccaagga aatcggatcc gttc 24

<210> 309
 <211> 50
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic Oligonucleotide Probe

<400> 309
 gccttctactg gtttggatgc attggagcat ctagacctga gtgacaacgc 50

<210> 310
 <211> 3296
 <212> DNA
 <213> Homo Sapien

<400> 310
 caaaacttgc gtcgcggaga ggcgccagct tgacttgaat ggaaggagcc 50
 cgagcccgcg gagcgcagct gagactgggg gagcgcgttc ggctgtggg 100
 gcgcccgtcg gcgcggggc gcagcaggga aggggaagct gtggtctgcc 150
 ctgtctccacg aggcgccact ggtgtgaacc gggagagccc ctgggtggtc 200
 ccgtcccccta tccctccttt atatagaaac cttccacact gggaaggcag 250
 cggcgaggca ggaggggtca tggtagcaa ggaggccggc tgatctgcag 300
 gcgcacagca ttccgagttt acagattttt acagatacca aatggaaggc 350
 gaggaggcag aacagcctgc ctggttccat cagccctggc gcccaggcgc 400
 atctgactcg gcacccccctg caggcaccat ggcccagagc cgggtgctgc 450

tgctcctgct gctgctgccg ccacagctgc acctgggacc tgtgcttgcc 500
 gtgagggccc caggatttgg ccgaagtggc ggccacagcc tgagccccga 550
 agagaacgaa tttgcgagg aggagccggt gctgggtactg agccctgagg 600
 agccccgggcc tggcccagcc gcggtcagct gcccccgaga ctgtgcctgt 650
 tcccaggagg gcgtcgtgga ctgtggcggt attgacctgc gtgagttccc 700
 ggggggacctg cctgagcaca ccaaccacct atctctgcag aacaaccagc 750
 tggaaaagat ctaccctgag gagctctccc ggctgcaccg gctggagaca 800
 ctgaacctgc aaaacaaccg cctgacttcc cgagggctcc cagagaaggc 850
 gtttgagcat ctgaccaacc tcaattacct gtacttggcc aataacaagc 900
 tgaccttggc accccgcttc ctgccaaacg ccctgatcag tgtggacttt 950
 gctgccaaact atctcaccaa gatctatggg ctacaccttg gccagaagcc 1000
 aaacttgagg tctgtgtacc tgcacaacaa caagctggca gacgccgggc 1050
 tgccggacaa catgttcaac ggctccagca acgtcgaggt cctcatcctg 1100
 tccagcaact tcctgcgcca cgtgcccaag cacctgccgc ctgccctgta 1150
 caagctgcac ctcaagaaca acaagctgga gaagatcccc ccgggggcct 1200
 tcagcgagct gagcagcctg cgcgagctat acctgcagaa caactacctg 1250
 actgacgagg gcctggacaa cgagaccttc tggaagctct ccagcctgga 1300
 gtacctggat ctgtccagca acaacctgtc tcgggtccca gctgggctgc 1350
 cgcgagcct ggtgctgctg cacttggaga agaacgccat ccggagcgtg 1400
 gacggaatg tgctgacccc catccgcagc ctggagtacc tgctgctgca 1450
 cagcaaccag ctgcgggagc agggcatcca cccactggcc ttccagggcc 1500
 tcaagcggtt gcacacggtg cacctgtaca acaacgcgct ggagcgctg 1550
 cccagtggcc tgctcgccg cgtgcgcacc ctcatgatcc tgcacaacca 1600
 gatcacaggc attggccgcg aagactttgc caccacctac ttctggagg 1650
 agctcaacct cagctacaac cgcatacca gcccacaggt gcaccgcgac 1700
 gccttccgca agctgcgcct gctgcgctcg ctggacctgt cgggcaaccg 1750
 gctgcacacg ctgccacctg ggctgcctcg aaatgtccat gtgctgaagg 1800
 tcaagcgcaa tgagctggct gccttggcac gaggggcgct ggcgggcatg 1850
 gctcagctgc gtgagctgta cctcaccagc aaccgactgc gcagccgagc 1900
 cctgggcccc cgtgcctggg tggacctgc ccactctgag ctgctggaca 1950

tcgcccgggaa tcagctcaca gagatccccg aggggctccc cgagtcactt 2000
 gagtacctgt acctgcagaa caacaagatt agtgcggtgc ccgccaatgc 2050
 cttcgactcc acgcccgaacc tcaaggggat ctttctcagg tttacaagc 2100
 tggctgtggg ctccgtggtg gacagtgcct tccggaggct gaagcacctg 2150
 caggtcttgg acattgaagg caacttagag tttggtgaca tttccaagga 2200
 ccgtggccgc ttggggaagg aaaaggagga ggaggaagag gaggaggagg 2250
 aggaagagga aacaagatag tgacaaggtg atgcagatgt gacctaggat 2300
 gatggaccgc cggactcttt tctgcagcac acgcctgtgt gctgtgagcc 2350
 cccactctg ccgtgctcac acagacacac ccagctgcac acatgaggca 2400
 tcccacatga cacgggctga cacagtctca tatccccacc ccttcccacg 2450
 gcgtgtccca cggccagaca catgcacaca catcacaccc tcaaacaccc 2500
 agctcagcca cacacaacta ccctccaaac caccacagtc tctgtcacac 2550
 cccactacc gctgccacgc cctctgaatc atgcaggga gggctctgcc 2600
 ctgccctggc acacacaggc acccattccc tccccctgct gacatgtgta 2650
 tgcgtatgca tacacaccac acacacacac atgcacaagt catgtgcgaa 2700
 cagccctcca aagcctatgc cacagacagc tcttgcccca gccagaatca 2750
 gccatagcag ctgcgccgtc gccctgtcca tctgtccgtc cgttccctgg 2800
 agaagacaca agggatatcca tgctctgtgg ccaggtgcct gccaccctct 2850
 ggaactcaca aaagctggct tttattcctt tcccatccta tggggacagg 2900
 agccttcagg actgctggcc tggcctggcc caccctgctc ctccaggtgc 2950
 tgggcagtca ctctgctaag agtccctccc tgccacgccc tggcaggaca 3000
 caggcacttt tccaatgggc aagcccagtg gaggcaggat gggagagccc 3050
 cctgggtgct gctggggcct tggggcagga gtgaagcaga ggtgatgggg 3100
 ctgggctgag ccagggagga aggaccagc tgcacctagg agacaccttt 3150
 gttcttcagg cctgtggggg aagttccggg tgcctttatt ttttattctt 3200
 ttctaaggaa aaaaatgata aaaatctcaa agctgatttt tcttgttata 3250
 gaaaaactaa tataaaagca ttatccctat ccctgcaaaa aaaaaa 3296

<210> 311

<211> 22

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Oligonucleotide Probe

<400> 311

gcattggccg cgagactttg cc 22

<210> 312

<211> 22

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Oligonucleotide Probe

<400> 312

gcggccacgg tccttggaat tg 22

<210> 313

<211> 45

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Oligonucleotide Probe

<400> 313

tggaggagct caacctcagc tacaaccgca tcaccagccc acagg 45

<210> 314

<211> 3003

<212> DNA

<213> Homo Sapien

<400> 314

gggagggggc tccgggccc gcgcagcaga cctgctccgg ccgcgcgcct 50

cgccgctgtc ctccgggagc ggcagcagta gcccgggcgg cgagggctgg 100

gggttctctg agactctcag aggggcgcct cccatcgggc cccaccaccc 150

caacctgttc ctgcgcgcc actgcgctgc gcccaggac ccgctgcca 200

acatggattt tctcctggcg ctggtgctgg tctcctcgt ctacctgcag 250

gcggccgccc agttcgacgg gaggtggccc aggcaaatac tgatcatgat 300

tggcctatgt cggttatggtg ggaggattga ctgctgctgg ggctgggctc 350

gccagtcttg gggacagtgt cagcctgtgt gcccaaccacg atgcaaaca 400

ggtgaatgta tcggggccaaa caagtgcagc tgatcatcctg gttatgctgg 450

aaaaacctgt aatcaagatc taaatgagtg tggcctgaag ccccgccct 500

gtaagcacag gtgcatgaac acttacggca gctacaagt ctactgtctc 550

aacggatata tgctcatgcc ggatgggttc tgctcaagt ccctgacctg 600

ctccatggca aactgtcagt atggctgtga tgttggttaa ggacaaatac 650

ggtgccagtg cccatcccct ggctgcacc tggctcctga tgggaggacc 700
 tgtgtagatg ttgatgaatg tgctacagga agagcctcct gccctagatt 750
 taggcaatgt gtcaacactt ttgggagcta catctgcaag tgtcataaag 800
 gcttcgatct catgtatatt ggaggcaaat atcaatgtca tgacatagac 850
 gaatgctcac ttggtcagta tcagtgcagc agctttgctc gatgttataa 900
 cgtacgtggg tcctacaagt gcaaagttaa agaaggatac cagggtgatg 950
 gactgacttg tgtgtatata ccaaaagtta tgattgaacc ttcaggtcca 1000
 attcatgtac caaagggaaa tgggtaccatt ttaaagggtg acacaggaaa 1050
 taataattgg attcctgatg ttggaagtac ttggtggcct ccgaagacac 1100
 catatatcc tcctatcatt accaacaggc ctacttctaa gccaacaaca 1150
 agacctacac caaagccaac accaattcct actccaccac caccaccacc 1200
 cctgccaaca gagctcagaa cacctctacc acctacaacc ccagaaaggc 1250
 caaccaccgg actgacaact atagcaccag ctgccagtac acctccagga 1300
 gggattacag ttgacaacag ggtacagaca gaccctcaga aaccagagg 1350
 agatgtgttc agtgttctgg tacacagttg taattttgac catggacttt 1400
 gtggatggat caggagagaa gacaatgact tgcactggga accaatcagg 1450
 gacccagcag gtggacaata tctgacagtg tcggcagcca aagccccagg 1500
 gggaaaagct gcacgcttgg tgctacctct cggccgcctc atgcattcag 1550
 gggacctgtg cctgtcattc aggcacaagg tgacggggct gcactctggc 1600
 aactccagg tgtttgtgag aaaacacggg gccacggag cagccctgtg 1650
 gggagaaat ggtggccatg gctggaggca aacacagatc acctgcgag 1700
 gggctgacat caagagcgaa tcacaaagat gattaaaggg ttggaaaaaa 1750
 agatctatga tggaaaatta aaggaactgg gattattgag cctggagaag 1800
 agaagactga ggggcaaacc attgatggtt ttcaagtata tgaagggttg 1850
 gcacagagag ggtggcgacc agctgttctc catatgcact aagaatagaa 1900
 caagaggaaa ctggcttaga ctagagtata agggagcatt tcttggcagg 1950
 ggccattggt agaatacttc ataaaaaag aagtgtgaaa atctcagtat 2000
 ctctctctct ttctaaaaaa ttagataaaa atttgtctat ttaagatggt 2050
 taaagatggt cttacccaag gaaaagtaac aaattataga atttcccaa 2100
 agatgttttg atcctactag tagtatgcag tgaaaatctt tagaactaaa 2150

taatttggac aaggettaat ttaggcattt ccctcttgac ctctaataatgg 2200
 agaggggattg aaaggggaag agcccaccaa atgctgagct cactgaaata 2250
 tctctccctt atggcaatcc tagcagtatt aaagaaaaaa ggaaactatt 2300
 tattccaaat gagagtatga tggacagata ttttagtatc tcagtaatgt 2350
 cctagtgtgg cggtgggttt caatgtttct tcatggtaaa ggtataagcc 2400
 tttcatttgt tcaatggatg atgtttcaga tttttttttt ttttaagagat 2450
 ccttcaagga acacagttca gagagatttt catcggtgtc attctctctg 2500
 cttcgttgtg gacaagttat cttggctgct gagaaagagt gccctgcccc 2550
 acaccggcag acctttcctt cacctcatca gtatgattca gtttctctta 2600
 tcaattggac tctcccaggt tccacagaac agtaatatat tttgaacaat 2650
 aggtacaata gaaggtcttc tgtcatttaa cctggtaaaag gcagggctgg 2700
 aggggggaaaa taaatcatta agcctttgag taacggcaga atatatggct 2750
 gtagatccat ttttaatggg tcatttcctt tatggtcata taactgcaca 2800
 gctgaagatg aaaggggaaa ataaatgaaa attttacttt tcgatgccaa 2850
 tgatacattg cactaaactg atggaagaag ttatccaaag tactgtataa 2900
 catcttgttt attatttaat gttttctaaa ataaaaaatg ttagtggttt 2950
 tccaaatggc ctaataaaaa caattatttg taaataaaaa cactgttagt 3000
 at 3003

<210> 315
 <211> 509
 <212> PRT
 <213> Homo Sapien

<400> 315
 Met Asp Phe Leu Leu Ala Leu Val Leu Val Ser Ser Leu Tyr Leu
 1 5 10 15
 Gln Ala Ala Ala Glu Phe Asp Gly Arg Trp Pro Arg Gln Ile Val
 20 25 30
 Ser Ser Ile Gly Leu Cys Arg Tyr Gly Gly Arg Ile Asp Cys Cys
 35 40 45
 Trp Gly Trp Ala Arg Gln Ser Trp Gly Gln Cys Gln Pro Val Cys
 50 55 60
 Gln Pro Arg Cys Lys His Gly Glu Cys Ile Gly Pro Asn Lys Cys
 65 70 75
 Lys Cys His Pro Gly Tyr Ala Gly Lys Thr Cys Asn Gln Asp Leu
 80 85 90

Asn	Glu	Cys	Gly	Leu	Lys	Pro	Arg	Pro	Cys	Lys	His	Arg	Cys	Met	95	100	105
Asn	Thr	Tyr	Gly	Ser	Tyr	Lys	Cys	Tyr	Cys	Leu	Asn	Gly	Tyr	Met	110	115	120
Leu	Met	Pro	Asp	Gly	Ser	Cys	Ser	Ser	Ala	Leu	Thr	Cys	Ser	Met	125	130	135
Ala	Asn	Cys	Gln	Tyr	Gly	Cys	Asp	Val	Val	Lys	Gly	Gln	Ile	Arg	140	145	150
Cys	Gln	Cys	Pro	Ser	Pro	Gly	Leu	His	Leu	Ala	Pro	Asp	Gly	Arg	155	160	165
Thr	Cys	Val	Asp	Val	Asp	Glu	Cys	Ala	Thr	Gly	Arg	Ala	Ser	Cys	170	175	180
Pro	Arg	Phe	Arg	Gln	Cys	Val	Asn	Thr	Phe	Gly	Ser	Tyr	Ile	Cys	185	190	195
Lys	Cys	His	Lys	Gly	Phe	Asp	Leu	Met	Tyr	Ile	Gly	Gly	Lys	Tyr	200	205	210
Gln	Cys	His	Asp	Ile	Asp	Glu	Cys	Ser	Leu	Gly	Gln	Tyr	Gln	Cys	215	220	225
Ser	Ser	Phe	Ala	Arg	Cys	Tyr	Asn	Val	Arg	Gly	Ser	Tyr	Lys	Cys	230	235	240
Lys	Cys	Lys	Glu	Gly	Tyr	Gln	Gly	Asp	Gly	Leu	Thr	Cys	Val	Tyr	245	250	255
Ile	Pro	Lys	Val	Met	Ile	Glu	Pro	Ser	Gly	Pro	Ile	His	Val	Pro	260	265	270
Lys	Gly	Asn	Gly	Thr	Ile	Leu	Lys	Gly	Asp	Thr	Gly	Asn	Asn	Asn	275	280	285
Trp	Ile	Pro	Asp	Val	Gly	Ser	Thr	Trp	Trp	Pro	Pro	Lys	Thr	Pro	290	295	300
Tyr	Ile	Pro	Pro	Ile	Ile	Thr	Asn	Arg	Pro	Thr	Ser	Lys	Pro	Thr	305	310	315
Thr	Arg	Pro	Thr	Pro	Lys	Pro	Thr	Pro	Ile	Pro	Thr	Pro	Pro	Pro	320	325	330
Pro	Pro	Pro	Leu	Pro	Thr	Glu	Leu	Arg	Thr	Pro	Leu	Pro	Pro	Thr	335	340	345
Thr	Pro	Glu	Arg	Pro	Thr	Thr	Gly	Leu	Thr	Thr	Ile	Ala	Pro	Ala	350	355	360
Ala	Ser	Thr	Pro	Pro	Gly	Gly	Ile	Thr	Val	Asp	Asn	Arg	Val	Gln	365	370	375
Thr	Asp	Pro	Gln	Lys	Pro	Arg	Gly	Asp	Val	Phe	Ser	Val	Leu	Val			

	380		385		390
His Ser Cys Asn	Phe Asp His Gly Leu	Cys Gly Trp Ile Arg	Glu		
	395		400		405
Lys Asp Asn Asp	Leu His Trp Glu Pro	Ile Arg Asp Pro Ala	Gly		
	410		415		420
Gly Gln Tyr Leu	Thr Val Ser Ala Ala	Lys Ala Pro Gly Gly	Lys		
	425		430		435
Ala Ala Arg Leu	Val Leu Pro Leu Gly	Arg Leu Met His Ser	Gly		
	440		445		450
Asp Leu Cys Leu	Ser Phe Arg His Lys	Val Thr Gly Leu His	Ser		
	455		460		465
Gly Thr Leu Gln	Val Phe Val Arg Lys	His Gly Ala His Gly	Ala		
	470		475		480
Ala Leu Trp Gly	Arg Asn Gly Gly His	Gly Trp Arg Gln Thr	Gln		
	485		490		495
Ile Thr Leu Arg	Gly Ala Asp Ile Lys	Ser Glu Ser Gln Arg			
	500		505		

<210> 316

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Oligonucleotide Probe

<400> 316

gatggttcct gctcaagtgc cctg 24

<210> 317

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Oligonucleotide Probe

<400> 317

ttgcacttgt aggacccacg tacg 24

<210> 318

<211> 50

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Oligonucleotide Probe

<400> 318

ctgatgggag gacctgtgta gatgttgatg aatgtgctac aggaagagcc 50

<210> 319
<211> 2110
<212> DNA
<213> Homo Sapien

<400> 319
cttcttttgaa aaggattatc acctgatcag gttctctctg catttgcccc 50
tttagattgt gaaatgtggc tcaaggtctt cacaactttc ctttcctttg 100
caacagggtgc ttgctcgggg ctgaagggtga cagtgccatc acacactgtc 150
catggcggtca gaggtcaggc cctctacctt cccgtccact atggcctcca 200
cactccagca tcagacatcc agatcatatg gctatctgag agaccccaca 250
caatgcccac atacttactg ggctctgtga ataagtctgt gggtcctgac 300
ttggaatacc aacacaagtt caccatgatg ccacccaatg catctctgct 350
tatcaaccca ctgcagttcc ctgatgaagg caattacatc gtgaagggtca 400
acattcaggg aaatggaact ctatctgcca gtcagaagat acaagtcacg 450
gttgatgatc ctgtcacaaa gccagtggtg cagattcatc ctccctctgg 500
ggctgtggag tatgtgggga acatgaccct gacatgccat gtggaagggg 550
gcactcgggt agcttaccaa tggctaaaaa atgggagacc tgtccacacc 600
agctccacct actccttttc tccccaaaac aatacccttc atattgctcc 650
agtaaccaag gaagacattg ggaattacag ctgcctggtg aggaaccctg 700
tcagtgaat ggaaagtgat atcattatgc ccatcatata ttatggacct 750
tatggacttc aagtgaattc tgataaaggg ctaaaagtag ggggaagtgtt 800
tactgttgac cttggagagg ccctcctatt tgattgttct gctgattctc 850
atccccccaa cacctactcc tggattagga ggactgacaa tactacatat 900
atcattaagc atgggcctcg cttagaagtt gcatctgaga aagtagccca 950
gaagacaatg gactatgtgt gctgtgctta caacaacata accggcaggc 1000
aagatgaaac tcatttcaca gttatcatca cttcgtagg actggagaag 1050
cttgacacaga aaggaaaatc attgtcacct ttagcaagta taactggaat 1100
atcactatct ttgattatat ccattgtgtt tctcttccta tggaaaaaat 1150
atcaacccta caaagttata aaacagaaac tagaaggcag gccagaaaca 1200
gaatacagga aagctcaaac attttcaggc catgaagatg ctctggatga 1250
cttcggaata tatgaatttg ttgcttttcc agatgtttct ggtgtttcca 1300
ggattccaag caggtctgtt ccagcctctg attgtgtatc ggggcaagat 1350

ttgcacagta cagtgtatga agttattcag cacatccctg cccagcagca 1400
 agaccatcca gagtgaactt tcatgggcta aacagtacat tcgagtga aa 1450
 ttctgaagaa acattttaag gaaaaacagt ggaaaagtat attaattctgg 1500
 aatcagtga gaaaccagga ccaacacctc ttactcatta ttcctttaca 1550
 tgcagaatag aggcattht gcaaattgaa ctgcagggttt ttcagcatat 1600
 acacaatgtc ttgtgcaaca gaaaaacatg ttgggggaaat attcctcagt 1650
 ggagagtcgt tctcatgctg acggggagaa cgaaagtac aggggtttcc 1700
 tcataagttt tgtatgaaat atctctacaa acctcaatta gttctactct 1750
 acactttcac tatcatcaac actgagacta tctgtctca cctacaaatg 1800
 tggaaacttt acattgttcg atttttcagc agactttggt ttattaaatt 1850
 tttattagt ttaagaatgc taaatttatg tttcaatttt atttccaaat 1900
 ttctatcttg ttattgtac acaaagtaa taaggatggt tgtcacaaaa 1950
 acaaaactat gccttctctt ttttttcaat caccagtagt atttttgaga 2000
 agacttgtga acacttaagg aaatgactat taaagtctta tttttatttt 2050
 tttcaaggaa agatggattc aaataaatta ttctgttttt gcttttaaaa 2100
 aaaaaaaaaa 2110

<210> 320
 <211> 450
 <212> PRT
 <213> Homo Sapien

<400> 320
 Met Trp Leu Lys Val Phe Thr Thr Phe Leu Ser Phe Ala Thr Gly
 1 5 10 15
 Ala Cys Ser Gly Leu Lys Val Thr Val Pro Ser His Thr Val His
 20 25 30
 Gly Val Arg Gly Gln Ala Leu Tyr Leu Pro Val His Tyr Gly Phe
 35 40 45
 His Thr Pro Ala Ser Asp Ile Gln Ile Ile Trp Leu Phe Glu Arg
 50 55 60
 Pro His Thr Met Pro Lys Tyr Leu Leu Gly Ser Val Asn Lys Ser
 65 70 75
 Val Val Pro Asp Leu Glu Tyr Gln His Lys Phe Thr Met Met Pro
 80 85 90
 Pro Asn Ala Ser Leu Leu Ile Asn Pro Leu Gln Phe Pro Asp Glu
 95 100 105

Gly	Asn	Tyr	Ile	Val	Lys	Val	Asn	Ile	Gln	Gly	Asn	Gly	Thr	Leu	110	115	120
Ser	Ala	Ser	Gln	Lys	Ile	Gln	Val	Thr	Val	Asp	Asp	Pro	Val	Thr	125	130	135
Lys	Pro	Val	Val	Gln	Ile	His	Pro	Pro	Ser	Gly	Ala	Val	Glu	Tyr	140	145	150
Val	Gly	Asn	Met	Thr	Leu	Thr	Cys	His	Val	Glu	Gly	Gly	Thr	Arg	155	160	165
Leu	Ala	Tyr	Gln	Trp	Leu	Lys	Asn	Gly	Arg	Pro	Val	His	Thr	Ser	170	175	180
Ser	Thr	Tyr	Ser	Phe	Ser	Pro	Gln	Asn	Asn	Thr	Leu	His	Ile	Ala	185	190	195
Pro	Val	Thr	Lys	Glu	Asp	Ile	Gly	Asn	Tyr	Ser	Cys	Leu	Val	Arg	200	205	210
Asn	Pro	Val	Ser	Glu	Met	Glu	Ser	Asp	Ile	Ile	Met	Pro	Ile	Ile	215	220	225
Tyr	Tyr	Gly	Pro	Tyr	Gly	Leu	Gln	Val	Asn	Ser	Asp	Lys	Gly	Leu	230	235	240
Lys	Val	Gly	Glu	Val	Phe	Thr	Val	Asp	Leu	Gly	Glu	Ala	Ile	Leu	245	250	255
Phe	Asp	Cys	Ser	Ala	Asp	Ser	His	Pro	Pro	Asn	Thr	Tyr	Ser	Trp	260	265	270
Ile	Arg	Arg	Thr	Asp	Asn	Thr	Thr	Tyr	Ile	Ile	Lys	His	Gly	Pro	275	280	285
Arg	Leu	Glu	Val	Ala	Ser	Glu	Lys	Val	Ala	Gln	Lys	Thr	Met	Asp	290	295	300
Tyr	Val	Cys	Cys	Ala	Tyr	Asn	Asn	Ile	Thr	Gly	Arg	Gln	Asp	Glu	305	310	315
Thr	His	Phe	Thr	Val	Ile	Ile	Thr	Ser	Val	Gly	Leu	Glu	Lys	Leu	320	325	330
Ala	Gln	Lys	Gly	Lys	Ser	Leu	Ser	Pro	Leu	Ala	Ser	Ile	Thr	Gly	335	340	345
Ile	Ser	Leu	Phe	Leu	Ile	Ile	Ser	Met	Cys	Leu	Leu	Phe	Leu	Trp	350	355	360
Lys	Lys	Tyr	Gln	Pro	Tyr	Lys	Val	Ile	Lys	Gln	Lys	Leu	Glu	Gly	365	370	375
Arg	Pro	Glu	Thr	Glu	Tyr	Arg	Lys	Ala	Gln	Thr	Phe	Ser	Gly	His	380	385	390
Glu	Asp	Ala	Leu	Asp	Asp	Phe	Gly	Ile	Tyr	Glu	Phe	Val	Ala	Phe	395	400	405

Pro Asp Val Ser Gly Val Ser Arg Ile Pro Ser Arg Ser Val Pro
410 415 420

Ala Ser Asp Cys Val Ser Gly Gln Asp Leu His Ser Thr Val Tyr
425 430 435

Glu Val Ile Gln His Ile Pro Ala Gln Gln Gln Asp His Pro Glu
440 445 450

<210> 321

<211> 25

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Oligonucleotide Probe

<400> 321

gatacctgtca caaagccagt ggtgc 25

<210> 322

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Oligonucleotide Probe

<400> 322

cactgacagg gttcctcacc cagg 24

<210> 323

<211> 45

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Oligonucleotide Probe

<400> 323

ctccctctgg gctgtggagt atgtggggaa catgaccctg acatg 45

<210> 324

<211> 2397

<212> DNA

<213> Homo Sapien

<400> 324

gcaagcggcg aaatggcgcc ctccgggagt cttgcagttc ccctggcagt 50

cctggtgctg ttgctttggg gtgctccctg gacgcacggg cggcggagca 100

acgttcgcgt catcacggac gagaactgga gagaactgct ggaaggagac 150

tggatgatag aattttatgc cccgtggtgc cctgcttgct aaaatcttca 200

accggaatgg gaaagttttg ctgaatgggg agaagatctt gaggttaata 250

ttgcgaaagt agatgtcaca gagcagccag gactgagtgg acggtttata 300
 ataactgctc ttcctactat ttatcattgt aaagatgggtg aatttaggcg 350
 ctatcagggg ccaaggacta agaaggactt cataaacttt ataagtgata 400
 aagagtggaa gagtattgag cccgtttcat catggtttgg tccaggttct 450
 gttctgatga gtagtatgtc agcactcttt cagctatcta tgtggatcag 500
 gacgtgccat aactacttta ttgaagacct tggattgcca gtgtggggat 550
 catatactgt ttttgcttta gcaactctgt tttccggact gttattagga 600
 ctctgtatga tatttgtggc agattgcctt tgtccttcaa aaaggcgag 650
 accacagcca taccatacc cttcaaaaaa attattatca gaatctgcac 700
 aacctttgaa aaaagtggag gaggaacaag aggcggatga agaagatgtt 750
 tcagaagaag aagctgaaag taaagaagga acaaacaag actttccaca 800
 gaatgccata agacaacgct ctctgggtcc atcattggcc acagataaat 850
 cctagttaaa ttttatagtt atcttaatat tatgattttg ataaaaacag 900
 aagattgatc attttgttt gtttgaagt aactgtgact tttttgaata 950
 ttgcaggggt cagtctagat tgtcattaaa ttgaagagtc tacattcaga 1000
 acataaaagc actagggtata caagtttgaa atatgattta agcacagtat 1050
 gatggtttaa atagttctct aatttttgaa aaatcgtgcc aagcaataag 1100
 atttatgtat atttgtttta taataaccta tttcaagtct gagttttgaa 1150
 aatttacatt tcccaagtat tgcattattg aggtatttaa gaagattatt 1200
 ttagagaaaa atatttctca tttgatataa ttttctctg tttcactgtg 1250
 tgaaaaaaag aagatatatt ccataaatgg gaagtttgcc cattgtctca 1300
 agaaatgtgt atttcagtga caatttcgtg gtcttttttag aggtatattc 1350
 caaaatttcc ttgtattttt aggttatgca actaataaaa actaccttac 1400
 attaattaat tacagttttc tacacatggg aatacaggat atgctactga 1450
 tttaggaagt ttttaagttc atggattctt cttgattcca acaaagtttg 1500
 attttctctt gtatttttct tacttactat gggttacatt ttttattttt 1550
 caaattggat gataatttct tggaaacatt ttttatgttt tagtaaacag 1600
 tatttttttg ttgtttcaaa ctgaagttaa ctgagagatc catcaaattg 1650
 aacaatctgt tgtaatttaa aattttggcc acttttttca gattttacat 1700
 cattcttgct gaacttcaac ttgaaattgt ttttttttcc tttttggatg 1750

tgaagggtgaa cattcctgat ttttgtctga tgtgaaaaag ccttggtatt 1800
ttacattttg aaaattcaaa gaagcttaat ataaaagttt gcattctact 1850
caggaaaaag catcttcttg tatatgtctt aaatgtattt ttgtcctcat 1900
atacagaaag ttcttaattg attttacagt ctgtaatgct tgatgtttta 1950
aaataataac atttttatat tttttaaaag acaaacttca tattatcctg 2000
tgttctttcc tgactggtaa tattgtgtgg gatttcacag gtaaaagtca 2050
gtaggatgga acatttttagt gtattttttac tccttaaaga gctagaatac 2100
atagttttca ccttaaaaga agggggaaaa tcataaatac aatgaatcaa 2150
ctgaccatta cgtagtagac aatttctgta atgtcccctt ctttctaggc 2200
tctgttgctg tgtgaatcca ttagatttac agtatcgtaa tatacaagtt 2250
ttctttaaag ccctctcctt tagaatttaa aatattgtac cattaaagag 2300
tttggatgtg taacttgtga tgccttagaa aaatatacta agcacaaaaat 2350
aaacctttct aaccacttca ttaaagctga aaaaaaaaaa aaaaaaa 2397

<210> 325

<211> 280

<212> PRT

<213> Homo Sapien

<400> 325

Met	Ala	Pro	Ser	Gly	Ser	Leu	Ala	Val	Pro	Leu	Ala	Val	Leu	Val
1				5					10					15
Leu	Leu	Leu	Trp	Gly	Ala	Pro	Trp	Thr	His	Gly	Arg	Arg	Ser	Asn
				20					25					30
Val	Arg	Val	Ile	Thr	Asp	Glu	Asn	Trp	Arg	Glu	Leu	Leu	Glu	Gly
				35					40					45
Asp	Trp	Met	Ile	Glu	Phe	Tyr	Ala	Pro	Trp	Cys	Pro	Ala	Cys	Gln
				50					55					60
Asn	Leu	Gln	Pro	Glu	Trp	Glu	Ser	Phe	Ala	Glu	Trp	Gly	Glu	Asp
				65					70					75
Leu	Glu	Val	Asn	Ile	Ala	Lys	Val	Asp	Val	Thr	Glu	Gln	Pro	Gly
				80					85					90
Leu	Ser	Gly	Arg	Phe	Ile	Ile	Thr	Ala	Leu	Pro	Thr	Ile	Tyr	His
				95					100					105
Cys	Lys	Asp	Gly	Glu	Phe	Arg	Arg	Tyr	Gln	Gly	Pro	Arg	Thr	Lys
				110					115					120
Lys	Asp	Phe	Ile	Asn	Phe	Ile	Ser	Asp	Lys	Glu	Trp	Lys	Ser	Ile
				125					130					135

Glu	Pro	Val	Ser	Ser	Trp	Phe	Gly	Pro	Gly	Ser	Val	Leu	Met	Ser	
				140					145					150	
Ser	Met	Ser	Ala	Leu	Phe	Gln	Leu	Ser	Met	Trp	Ile	Arg	Thr	Cys	
				155					160					165	
His	Asn	Tyr	Phe	Ile	Glu	Asp	Leu	Gly	Leu	Pro	Val	Trp	Gly	Ser	
				170					175					180	
Tyr	Thr	Val	Phe	Ala	Leu	Ala	Thr	Leu	Phe	Ser	Gly	Leu	Leu	Leu	
				185					190					195	
Gly	Leu	Cys	Met	Ile	Phe	Val	Ala	Asp	Cys	Leu	Cys	Pro	Ser	Lys	
				200					205					210	
Arg	Arg	Arg	Pro	Gln	Pro	Tyr	Pro	Tyr	Pro	Ser	Lys	Lys	Leu	Leu	
				215					220					225	
Ser	Glu	Ser	Ala	Gln	Pro	Leu	Lys	Lys	Val	Glu	Glu	Glu	Gln	Glu	
				230					235					240	
Ala	Asp	Glu	Glu	Asp	Val	Ser	Glu	Glu	Glu	Ala	Glu	Ser	Lys	Glu	
				245					250					255	
Gly	Thr	Asn	Lys	Asp	Phe	Pro	Gln	Asn	Ala	Ile	Arg	Gln	Arg	Ser	
				260					265					270	
Leu	Gly	Pro	Ser	Leu	Ala	Thr	Asp	Lys	Ser						
				275					280						

<210> 326

<211> 23

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Oligonucleotide Probe

<400> 326

tgaggtgggc aagcggcgaa atg 23

<210> 327

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Oligonucleotide Probe

<400> 327

tatgtggatc aggacgtgcc 20

<210> 328

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Oligonucleotide Probe

<400> 328

tgcaggggttc agtctagatt g 21

<210> 329

<211> 25

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Oligonucleotide Probe

<400> 329

ttgaaggaca aaggcaatct gccac 25

<210> 330

<211> 45

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Oligonucleotide Probe

<400> 330

ggagtcttgc agttccctg gcagtcctgg tgctgttgct ttggg 45

<210> 331

<211> 2168

<212> DNA

<213> Homo Sapien

<400> 331

gcgagtgtcc agctgcggag acccgtgata attcgттаac taattcaaca 50

aacgggaccc ttctgtgtgc cagaaaccgc aagcagttgc taaccagtg 100

ggacaggcgg attggaagag cgggaaggtc ctggcccaga gcagtgtgac 150

acttccctct gtgaccatga aactctgggt gtctgcattg ctgatggcct 200

ggtttggtgt cctgagctgt gtgcaggccg aattcttcac ctctattggg 250

cacatgactg acctgattta tgcagagaaa gagctgggtgc agtctctgaa 300

agagtacatc cttgtggagg aagccaagct ttccaagatt aagagctggg 350

ccaacaaaat ggaagccttg actagcaagt cagctgctga tgctgagggc 400

tacctggctc accctgtgaa tgcctacaaa ctggtgaagc ggctaaacac 450

agactggcct gcgctggagg accttgctct gcaggactca gctgcagggt 500

ttatcgccaa cctctctgtg cagcggcagt tcttccccac tgatgaggac 550

gagataggag ctgccaaagc cctgatgaga cttcaggaca catacaggct 600

ggaccaggc acaatttcca gaggggaact tccaggaacc aagtaccagg 650

caatgctgag tgtggatgac tgctttggga tgggccgctc ggctacaat 700

gaaggggact attatcatatc ggtggttgagg atggagcagg tgctaaagca 750
 gcttgatgcc ggggaggagg ccaccacaac caagtcacag gtgctggact 800
 acctcagcta tgctgtcttc cagttgggtg atctgcaccg tgccctggag 850
 ctcacccgcc gcctgtcttc ccttgacca agccacgaac gagctggagg 900
 gaatctgcgg tactttgagc agttattgga ggaagagaga gaaaaaacgt 950
 taacaaatca gacagaagct gagctagcaa cccagaagg catctatgag 1000
 aggcctgtgg actacctgcc tgagagggat gtttacgaga gcctctgtcg 1050
 tggggagggt gtcaaactga cccccgtag acagaagagg cttttctgta 1100
 ggtaccacca tggcaacagg gcccacagc tgctcattgc ccccttcaa 1150
 gaggaggacg agtgggacag ccgcacatc gtcagggtact acgatgtcat 1200
 gtctgatgag gaaatcgaga ggatcaagga gatcgcaaaa cctaaacttg 1250
 cacgagccac cgttcgtgat cccaagacag gagtcctcac tgcgccagc 1300
 taccgggttt ccaaaagctc ctggctagag gaagatgatg accctgttgt 1350
 ggcccagta aatcgtcga tgcagcatat cacagggtta acagtaaaga 1400
 ctgcagaatt gttacagggt gcaaattatg gagtgggagg acagtatgaa 1450
 ccgcacttcg acttctctag gcgacctttt gacagcggcc tcaaacaga 1500
 ggggaatagg ttagcgacgt ttcttaacta catgagtgat gtagaagctg 1550
 gtggtgccac cgtcttcct gatctggggg ctgcaatttg gcctaagaag 1600
 ggtacagctg tgttctggta caacctcttg cggagcgggg aaggtgacta 1650
 ccgaacaaga catgctgcct gccctgtgct tgtgggctgc aagtgggtct 1700
 ccaataagtg gttccatgaa cgaggacagg agttcttgag accttggtga 1750
 tcaacagaag ttgactgaca tcctttctg tccttccct tcctggtcct 1800
 tcagcccatg tcaacgtgac agacacctt gtatgttcct ttgtatgttc 1850
 ctatcaggct gatttttgga gaaatgaatg tttgtctgga gcagaggag 1900
 accatactag ggcgactcct gtgtgactga agtcccagcc cttccattca 1950
 gcctgtgcca tccttgccc caaggctagg atcaaagtgg ctgcagcaga 2000
 gttagctgtc tagcgctag caaggctcct ttgtacctca ggtgttttag 2050
 gtgtgagatg tttcagtga ccaaagttct gataccttgt ttacatgttt 2100
 gtttttatgg catttctatc tattgtggct ttaccaaaaa ataaaatgtc 2150
 cctaccagaa aaaaaaaaa 2168

<210> 332
 <211> 533
 <212> PRT
 <213> Homo Sapien

<400> 332

Met	Lys	Leu	Trp	Val	Ser	Ala	Leu	Leu	Met	Ala	Trp	Phe	Gly	Val	1	5	10	15
Leu	Ser	Cys	Val	Gln	Ala	Glu	Phe	Phe	Thr	Ser	Ile	Gly	His	Met	20	25	30	
Thr	Asp	Leu	Ile	Tyr	Ala	Glu	Lys	Glu	Leu	Val	Gln	Ser	Leu	Lys	35	40	45	
Glu	Tyr	Ile	Leu	Val	Glu	Glu	Ala	Lys	Leu	Ser	Lys	Ile	Lys	Ser	50	55	60	
Trp	Ala	Asn	Lys	Met	Glu	Ala	Leu	Thr	Ser	Lys	Ser	Ala	Ala	Asp	65	70	75	
Ala	Glu	Gly	Tyr	Leu	Ala	His	Pro	Val	Asn	Ala	Tyr	Lys	Leu	Val	80	85	90	
Lys	Arg	Leu	Asn	Thr	Asp	Trp	Pro	Ala	Leu	Glu	Asp	Leu	Val	Leu	95	100	105	
Gln	Asp	Ser	Ala	Ala	Gly	Phe	Ile	Ala	Asn	Leu	Ser	Val	Gln	Arg	110	115	120	
Gln	Phe	Phe	Pro	Thr	Asp	Glu	Asp	Glu	Ile	Gly	Ala	Ala	Lys	Ala	125	130	135	
Leu	Met	Arg	Leu	Gln	Asp	Thr	Tyr	Arg	Leu	Asp	Pro	Gly	Thr	Ile	140	145	150	
Ser	Arg	Gly	Glu	Leu	Pro	Gly	Thr	Lys	Tyr	Gln	Ala	Met	Leu	Ser	155	160	165	
Val	Asp	Asp	Cys	Phe	Gly	Met	Gly	Arg	Ser	Ala	Tyr	Asn	Glu	Gly	170	175	180	
Asp	Tyr	Tyr	His	Thr	Val	Leu	Trp	Met	Glu	Gln	Val	Leu	Lys	Gln	185	190	195	
Leu	Asp	Ala	Gly	Glu	Glu	Ala	Thr	Thr	Thr	Lys	Ser	Gln	Val	Leu	200	205	210	
Asp	Tyr	Leu	Ser	Tyr	Ala	Val	Phe	Gln	Leu	Gly	Asp	Leu	His	Arg	215	220	225	
Ala	Leu	Glu	Leu	Thr	Arg	Arg	Leu	Leu	Ser	Leu	Asp	Pro	Ser	His	230	235	240	
Glu	Arg	Ala	Gly	Gly	Asn	Leu	Arg	Tyr	Phe	Glu	Gln	Leu	Leu	Glu	245	250	255	
Glu	Glu	Arg	Glu	Lys	Thr	Leu	Thr	Asn	Gln	Thr	Glu	Ala	Glu	Leu				

260					265					270				
Ala	Thr	Pro	Glu	Gly	Ile	Tyr	Glu	Arg	Pro	Val	Asp	Tyr	Leu	Pro
				275					280					285
Glu	Arg	Asp	Val	Tyr	Glu	Ser	Leu	Cys	Arg	Gly	Glu	Gly	Val	Lys
				290					295					300
Leu	Thr	Pro	Arg	Arg	Gln	Lys	Arg	Leu	Phe	Cys	Arg	Tyr	His	His
				305					310					315
Gly	Asn	Arg	Ala	Pro	Gln	Leu	Leu	Ile	Ala	Pro	Phe	Lys	Glu	Glu
				320					325					330
Asp	Glu	Trp	Asp	Ser	Pro	His	Ile	Val	Arg	Tyr	Tyr	Asp	Val	Met
				335					340					345
Ser	Asp	Glu	Glu	Ile	Glu	Arg	Ile	Lys	Glu	Ile	Ala	Lys	Pro	Lys
				350					355					360
Leu	Ala	Arg	Ala	Thr	Val	Arg	Asp	Pro	Lys	Thr	Gly	Val	Leu	Thr
				365					370					375
Val	Ala	Ser	Tyr	Arg	Val	Ser	Lys	Ser	Ser	Trp	Leu	Glu	Glu	Asp
				380					385					390
Asp	Asp	Pro	Val	Val	Ala	Arg	Val	Asn	Arg	Arg	Met	Gln	His	Ile
				395					400					405
Thr	Gly	Leu	Thr	Val	Lys	Thr	Ala	Glu	Leu	Leu	Gln	Val	Ala	Asn
				410					415					420
Tyr	Gly	Val	Gly	Gly	Gln	Tyr	Glu	Pro	His	Phe	Asp	Phe	Ser	Arg
				425					430					435
Arg	Pro	Phe	Asp	Ser	Gly	Leu	Lys	Thr	Glu	Gly	Asn	Arg	Leu	Ala
				440					445					450
Thr	Phe	Leu	Asn	Tyr	Met	Ser	Asp	Val	Glu	Ala	Gly	Gly	Ala	Thr
				455					460					465
Val	Phe	Pro	Asp	Leu	Gly	Ala	Ala	Ile	Trp	Pro	Lys	Lys	Gly	Thr
				470					475					480
Ala	Val	Phe	Trp	Tyr	Asn	Leu	Leu	Arg	Ser	Gly	Glu	Gly	Asp	Tyr
				485					490					495
Arg	Thr	Arg	His	Ala	Ala	Cys	Pro	Val	Leu	Val	Gly	Cys	Lys	Trp
				500					505					510
Val	Ser	Asn	Lys	Trp	Phe	His	Glu	Arg	Gly	Gln	Glu	Phe	Leu	Arg
				515					520					525
Pro	Cys	Gly	Ser	Thr	Glu	Val	Asp							
				530										

<210> 333
 <211> 18
 <212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Oligonucleotide Probe

<400> 333

ccaggcacaa tttccaga 18

<210> 334

<211> 19

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Oligonucleotide Probe

<400> 334

ggacccttct gtgtgccag 19

<210> 335

<211> 19

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Oligonucleotide Probe

<400> 335

ggtctcaaga actcctgtc 19

<210> 336

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Oligonucleotide Probe

<400> 336

acactcagca ttgcctggta cttg 24

<210> 337

<211> 45

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Oligonucleotide Probe

<400> 337

gggcacatga ctgacctgat ttatgcagag aaagagctgg tgcag 45

<210> 338

<211> 2789

<212> DNA

<213> Homo Sapien

<400> 338

gcagtattga gttttacttc ctctctttt tagtggaaga cagaccataa 50

tcccagtggtg agtgaaattg attgtttcat ttattaccgt tttggctggg 100
 ggtagttcc gacaccttca cagttgaaga gcaggcagaa ggagttgtga 150
 agacaggaca atcttcttgg ggatgctggg cctggaagcc agcgggcctt 200
 gctctgtctt tggcctcatt gaccccaggt tctctgggta aaactgaaag 250
 cctactactg gcctgggtgcc catcaatcca ttgatccttg aggctgtgcc 300
 cctggggcac ccacctggca gggcctacca ccatgcgact gagctccctg 350
 ttggctctgc tgcggccagc gcttccccctc atcttagggc tgtctctggg 400
 gtgcagcctg agcctcctgc gggtttccctg gatccagggg gagggagaag 450
 atccctgtgt cgaggctgta ggggagcgag gagggccaca gaatccagat 500
 tcgagagctc ggctagacca aagtgatgaa gacttcaaac cccggattgt 550
 cccctactac agggacccca acaagcccta caagaagggtg ctcaggactc 600
 ggtacatcca gacagagctg ggctcccgtg agcgggtgct ggtggctgtc 650
 ctgacctccc gagctacact gtccactttg gccgtggctg tgaaccgtac 700
 ggtggcccat cacttccctc gggtactcta cttcactggg cagcgggggg 750
 cccgggctcc agcagggatg cagggtgggtg ctcatgggga tgagcggccc 800
 gcctgggtca tgtcagagac cctgcgccac cttcacacac actttggggc 850
 cgactacgac tggttcttca tcatgcagga tgacacatat gtgcaggccc 900
 cccgcctggc agcccttgct ggccacctca gcatcaacca agacctgtac 950
 ttaggccggg cagaggagtt cattggcgca ggcgagcagg cccggtactg 1000
 tcatgggggc tttggctacc tgttgtcaag gagtctcctg cttcgtctgc 1050
 ggccacatct ggatggctgc cgaggagaca ttctcagtgc ccgtcctgac 1100
 gagtggcttg gacgtgcct cattgactct ctgggcgtcg gctgtgtctc 1150
 acagcaccag gggcagcagt atcgctcatt tgaactggcc aaaaataggg 1200
 accctgagaa ggaagggagc tcggctttcc tgagtgcctt cgccgtgcac 1250
 cctgtctccg aaggtaccct catgtaccgg ctccacaaac gcttcagcgc 1300
 tctggagttg gagcgggctt acagtgaaat agaacaactg caggctcaga 1350
 tccggaacct gaccgtgctg acccccgaag gggaggcagg gctgagctgg 1400
 cccgttgggc tcctgctcc tttcacacca cactctcgct ttgagggtgct 1450
 gggctgggac tacttcacag agcagcacac cttctcctgt gcagatgggg 1500
 ctcccaagtg ccactacag ggggctagca gggcggaagt ggggtgatgcg 1550

ttggagactg ccctggagca gctcaatcgg cgctatcagc cccgcctgcg 1600
 cttccagaag cagcgactgc tcaacggcta tcggcgcttc gaccagcac 1650
 ggggcatgga gtacaccctg gacctgctgt tggaatgtgt gacacagcgt 1700
 gggcaccggc gggccctggc tcgcagggtc agcctgctgc ggccactgag 1750
 ccgggtggaa atcctaccta tgccctatgt cactgaggcc acccgagtgc 1800
 agctgggtgt gccactcctg gtggctgaag ctgctgcagc cccggctttc 1850
 ctcgaggcgt ttgcagcaa tgtcctggag ccacgagAAC atgcattgct 1900
 caccctgttg ctggtctacg ggccacgaga aggtggccgt ggagctccag 1950
 acccatttct tgggggtgaag gctgcagcag cggagttaga gcgacggtac 2000
 cctgggacga ggctggcctg gctcgtgtg cgagcagagg ccccttccca 2050
 ggtgcgactc atggacgtgg tctcgaagaa gcaccctgtg gacactctct 2100
 tcttccttac caccgtgtgg acaaggcctg ggcccgaagt cctcaaccgc 2150
 tgtcgcata atgcatctc tggctggcag gccttctttc cagtccattt 2200
 ccaggagttc aatcctgccc tgtcaccaca gagatcacc ccaggggccc 2250
 cgggggctgg ccctgacccc cctccctc ctggtgctga cccctcccgg 2300
 ggggctccta taggggggag atttgaccgg caggcttctg cggagggtg 2350
 cttctacaac gctgactacc tggcggcccg agccggctg gcagggtgaac 2400
 tggcaggcca ggaagaggag gaagccctgg aggggctgga ggtgatggat 2450
 gttttcctcc gggtctcagg gctccacctc tttcgggccg tagagccagg 2500
 gctggtgcag aagttctccc tgcgagactg cagcccacgg ctcaagtgaag 2550
 aactctacca ccgctgccgc ctcagcaacc tggaggggct agggggccgt 2600
 gccagctgg ctatggctct ctttgagcag gagcaggcca atagcactta 2650
 gccgcctgg gggccctaac ctcattacct ttcctttgtc tgcctcagcc 2700
 ccaggaagg caaggcaaga tgggtggacag atagagaatt gttgctgtat 2750
 tttttaata tgaaaatgtt attaaacatg tcttctgcc 2789

<210> 339

<211> 772

<212> PRT

<213> Homo Sapien

<400> 339

Met Arg Leu Ser Ser Leu Leu Ala Leu Leu Arg Pro Ala Leu Pro
 1 5 10 15

Leu	Ile	Leu	Gly	Leu	Ser	Leu	Gly	Cys	Ser	Leu	Ser	Leu	Leu	Arg	
				20					25					30	
Val	Ser	Trp	Ile	Gln	Gly	Glu	Gly	Glu	Asp	Pro	Cys	Val	Glu	Ala	
				35					40					45	
Val	Gly	Glu	Arg	Gly	Gly	Pro	Gln	Asn	Pro	Asp	Ser	Arg	Ala	Arg	
				50					55					60	
Leu	Asp	Gln	Ser	Asp	Glu	Asp	Phe	Lys	Pro	Arg	Ile	Val	Pro	Tyr	
				65					70					75	
Tyr	Arg	Asp	Pro	Asn	Lys	Pro	Tyr	Lys	Lys	Val	Leu	Arg	Thr	Arg	
				80					85					90	
Tyr	Ile	Gln	Thr	Glu	Leu	Gly	Ser	Arg	Glu	Arg	Leu	Leu	Val	Ala	
				95					100					105	
Val	Leu	Thr	Ser	Arg	Ala	Thr	Leu	Ser	Thr	Leu	Ala	Val	Ala	Val	
				110					115					120	
Asn	Arg	Thr	Val	Ala	His	His	Phe	Pro	Arg	Leu	Leu	Tyr	Phe	Thr	
				125					130					135	
Gly	Gln	Arg	Gly	Ala	Arg	Ala	Pro	Ala	Gly	Met	Gln	Val	Val	Ser	
				140					145					150	
His	Gly	Asp	Glu	Arg	Pro	Ala	Trp	Leu	Met	Ser	Glu	Thr	Leu	Arg	
				155					160					165	
His	Leu	His	Thr	His	Phe	Gly	Ala	Asp	Tyr	Asp	Trp	Phe	Phe	Ile	
				170					175					180	
Met	Gln	Asp	Asp	Thr	Tyr	Val	Gln	Ala	Pro	Arg	Leu	Ala	Ala	Leu	
				185					190					195	
Ala	Gly	His	Leu	Ser	Ile	Asn	Gln	Asp	Leu	Tyr	Leu	Gly	Arg	Ala	
				200					205					210	
Glu	Glu	Phe	Ile	Gly	Ala	Gly	Glu	Gln	Ala	Arg	Tyr	Cys	His	Gly	
				215					220					225	
Gly	Phe	Gly	Tyr	Leu	Leu	Ser	Arg	Ser	Leu	Leu	Leu	Arg	Leu	Arg	
				230					235					240	
Pro	His	Leu	Asp	Gly	Cys	Arg	Gly	Asp	Ile	Leu	Ser	Ala	Arg	Pro	
				245					250					255	
Asp	Glu	Trp	Leu	Gly	Arg	Cys	Leu	Ile	Asp	Ser	Leu	Gly	Val	Gly	
				260					265					270	
Cys	Val	Ser	Gln	His	Gln	Gly	Gln	Gln	Tyr	Arg	Ser	Phe	Glu	Leu	
				275					280					285	
Ala	Lys	Asn	Arg	Asp	Pro	Glu	Lys	Glu	Gly	Ser	Ser	Ala	Phe	Leu	
				290					295					300	
Ser	Ala	Phe	Ala	Val	His	Pro	Val	Ser	Glu	Gly	Thr	Leu	Met	Tyr	
				305					310					315	

Arg	Leu	His	Lys	Arg	Phe	Ser	Ala	Leu	Glu	Leu	Glu	Arg	Ala	Tyr	320	325	330
Ser	Glu	Ile	Glu	Gln	Leu	Gln	Ala	Gln	Ile	Arg	Asn	Leu	Thr	Val	335	340	345
Leu	Thr	Pro	Glu	Gly	Glu	Ala	Gly	Leu	Ser	Trp	Pro	Val	Gly	Leu	350	355	360
Pro	Ala	Pro	Phe	Thr	Pro	His	Ser	Arg	Phe	Glu	Val	Leu	Gly	Trp	365	370	375
Asp	Tyr	Phe	Thr	Glu	Gln	His	Thr	Phe	Ser	Cys	Ala	Asp	Gly	Ala	380	385	390
Pro	Lys	Cys	Pro	Leu	Gln	Gly	Ala	Ser	Arg	Ala	Asp	Val	Gly	Asp	395	400	405
Ala	Leu	Glu	Thr	Ala	Leu	Glu	Gln	Leu	Asn	Arg	Arg	Tyr	Gln	Pro	410	415	420
Arg	Leu	Arg	Phe	Gln	Lys	Gln	Arg	Leu	Leu	Asn	Gly	Tyr	Arg	Arg	425	430	435
Phe	Asp	Pro	Ala	Arg	Gly	Met	Glu	Tyr	Thr	Leu	Asp	Leu	Leu	Leu	440	445	450
Glu	Cys	Val	Thr	Gln	Arg	Gly	His	Arg	Arg	Ala	Leu	Ala	Arg	Arg	455	460	465
Val	Ser	Leu	Leu	Arg	Pro	Leu	Ser	Arg	Val	Glu	Ile	Leu	Pro	Met	470	475	480
Pro	Tyr	Val	Thr	Glu	Ala	Thr	Arg	Val	Gln	Leu	Val	Leu	Pro	Leu	485	490	495
Leu	Val	Ala	Glu	Ala	Ala	Ala	Ala	Pro	Ala	Phe	Leu	Glu	Ala	Phe	500	505	510
Ala	Ala	Asn	Val	Leu	Glu	Pro	Arg	Glu	His	Ala	Leu	Leu	Thr	Leu	515	520	525
Leu	Leu	Val	Tyr	Gly	Pro	Arg	Glu	Gly	Gly	Arg	Gly	Ala	Pro	Asp	530	535	540
Pro	Phe	Leu	Gly	Val	Lys	Ala	Ala	Ala	Ala	Glu	Leu	Glu	Arg	Arg	545	550	555
Tyr	Pro	Gly	Thr	Arg	Leu	Ala	Trp	Leu	Ala	Val	Arg	Ala	Glu	Ala	560	565	570
Pro	Ser	Gln	Val	Arg	Leu	Met	Asp	Val	Val	Ser	Lys	Lys	His	Pro	575	580	585
Val	Asp	Thr	Leu	Phe	Phe	Leu	Thr	Thr	Val	Trp	Thr	Arg	Pro	Gly	590	595	600
Pro	Glu	Val	Leu	Asn	Arg	Cys	Arg	Met	Asn	Ala	Ile	Ser	Gly	Trp			

605										610					615				
Gln	Ala	Phe	Phe	Pro	Val	His	Phe	Gln	Glu	Phe	Asn	Pro	Ala	Leu					
				620					625					630					
Ser	Pro	Gln	Arg	Ser	Pro	Pro	Gly	Pro	Pro	Gly	Ala	Gly	Pro	Asp					
				635					640					645					
Pro	Pro	Ser	Pro	Pro	Gly	Ala	Asp	Pro	Ser	Arg	Gly	Ala	Pro	Ile					
				650					655					660					
Gly	Gly	Arg	Phe	Asp	Arg	Gln	Ala	Ser	Ala	Glu	Gly	Cys	Phe	Tyr					
				665					670					675					
Asn	Ala	Asp	Tyr	Leu	Ala	Ala	Arg	Ala	Arg	Leu	Ala	Gly	Glu	Leu					
				680					685					690					
Ala	Gly	Gln	Glu	Glu	Glu	Glu	Ala	Leu	Glu	Gly	Leu	Glu	Val	Met					
				695					700					705					
Asp	Val	Phe	Leu	Arg	Phe	Ser	Gly	Leu	His	Leu	Phe	Arg	Ala	Val					
				710					715					720					
Glu	Pro	Gly	Leu	Val	Gln	Lys	Phe	Ser	Leu	Arg	Asp	Cys	Ser	Pro					
				725					730					735					
Arg	Leu	Ser	Glu	Glu	Leu	Tyr	His	Arg	Cys	Arg	Leu	Ser	Asn	Leu					
				740					745					750					
Glu	Gly	Leu	Gly	Gly	Arg	Ala	Gln	Leu	Ala	Met	Ala	Leu	Phe	Glu					
				755					760					765					
Gln	Glu	Gln	Ala	Asn	Ser	Thr													
				770															

<210> 340
 <211> 1572
 <212> DNA
 <213> Homo Sapien

<400> 340
 cggagtggtg cgccaacgtg agaggaaacc cgtgcgcggc tgcgctttcc 50
 tgtccccaag ccgttctaga cgcgggaaaa atgctttctg aaagcagctc 100
 ctttttgaag ggtgtgatgc ttggaagcat tttctgtgct ttgatcacta 150
 tgctaggaca cattaggatt ggtcatggaa atagaatgca ccaccatgag 200
 catcatcacc tacaagctcc taacaaagaa gatatcttga aaatttcaga 250
 ggatgagcgc atggagctca gtaagagctt tcgagtatac tgtattatcc 300
 ttgtaaaacc caaagatgtg agtctttggg ctgcagtaaa ggagacttgg 350
 accaaacact gtgacaaagc agagttcttc agttctgaaa atgttaaagt 400
 gtttgagtca attaatatgg acacaaatga catgtgggta atgatgagaa 450

aagcttacaa atacgccttt gataagtata gagaccaata caactgggttc 500
ttccttgacac gcccactac gtttgctatc attgaaaacc taaagtattt 550
tttggttaaaa aaggatccat cacagccttt ctatctaggc cacactataa 600
aatctggaga ccttgaatat gtgggtatgg aaggaggaat tgtcttaagt 650
gtagaatcaa tgaaaagact taacagcctt ctcaatatcc cagaaaagtg 700
tcctgaacag ggagggatga tttggaagat atctgaagat aaacagctag 750
cagtttgctt gaaatatgct ggagtatttg cagaaaatgc agaagatgct 800
gatggaaaag atgtatttaa taccaaactc gttgggcttt ctattaaaga 850
ggcaatgact tatcacccca accaggtagt agaaggctgt tggtcagata 900
tggtctgttac ttttaatgga ctgactccaa atcagatgca tgtgatgatg 950
tatgggggtat accgccttag ggcatttggg catattttca atgatgcatt 1000
ggttttctta cctccaaatg gttctgacaa tgactgagaa gtggtagaaa 1050
agcgtgaata tgatctttgt ataggacgtg tggtgtcatt atttgtagta 1100
gtaactacat atccaataca gctgtatgtt tctttttctt ttctaatttg 1150
gtggcactgg tataaccaca cattaaagtc agtagtacat ttttaaatga 1200
gggtgggtttt tttcttttaa acacatgaac attgtaaatg tggtggaaag 1250
aagtgtttta agaataataa ttttgcaa atactattaa taaatattat 1300
atgtgataaa ttctaaatta tgaacattag aaatctgtgg ggcacatatt 1350
tttgctgatt ggtaaaaaa ttttaacagg tcttttagcgt tctaagatat 1400
gcaaatgata tctctagttg tgaatttgtg attaaagtaa aacttttagc 1450
tgtgtgttcc ctttacttct aatactgatt tatgttctaa gcctcccaa 1500
gttccaatgg atttgccttc tcaaaatgta caactaagca actaaagaaa 1550
attaaagtga aagttgaaaa at 1572

<210> 341

<211> 318

<212> PRT

<213> Homo Sapien

<400> 341

Met	Leu	Ser	Glu	Ser	Ser	Ser	Phe	Leu	Lys	Gly	Val	Met	Leu	Gly
1				5					10				15	
Ser	Ile	Phe	Cys	Ala	Leu	Ile	Thr	Met	Leu	Gly	His	Ile	Arg	Ile
				20					25				30	
Gly	His	Gly	Asn	Arg	Met	His	His	His	Glu	His	His	His	Leu	Gln
				35					40				45	

Ala	Pro	Asn	Lys	Glu	Asp	Ile	Leu	Lys	Ile	Ser	Glu	Asp	Glu	Arg	
				50					55					60	
Met	Glu	Leu	Ser	Lys	Ser	Phe	Arg	Val	Tyr	Cys	Ile	Ile	Leu	Val	
				65					70					75	
Lys	Pro	Lys	Asp	Val	Ser	Leu	Trp	Ala	Ala	Val	Lys	Glu	Thr	Trp	
				80					85					90	
Thr	Lys	His	Cys	Asp	Lys	Ala	Glu	Phe	Phe	Ser	Ser	Glu	Asn	Val	
				95					100					105	
Lys	Val	Phe	Glu	Ser	Ile	Asn	Met	Asp	Thr	Asn	Asp	Met	Trp	Leu	
				110					115					120	
Met	Met	Arg	Lys	Ala	Tyr	Lys	Tyr	Ala	Phe	Asp	Lys	Tyr	Arg	Asp	
				125					130					135	
Gln	Tyr	Asn	Trp	Phe	Phe	Leu	Ala	Arg	Pro	Thr	Thr	Phe	Ala	Ile	
				140					145					150	
Ile	Glu	Asn	Leu	Lys	Tyr	Phe	Leu	Leu	Lys	Lys	Asp	Pro	Ser	Gln	
				155					160					165	
Pro	Phe	Tyr	Leu	Gly	His	Thr	Ile	Lys	Ser	Gly	Asp	Leu	Glu	Tyr	
				170					175					180	
Val	Gly	Met	Glu	Gly	Gly	Ile	Val	Leu	Ser	Val	Glu	Ser	Met	Lys	
				185					190					195	
Arg	Leu	Asn	Ser	Leu	Leu	Asn	Ile	Pro	Glu	Lys	Cys	Pro	Glu	Gln	
				200					205					210	
Gly	Gly	Met	Ile	Trp	Lys	Ile	Ser	Glu	Asp	Lys	Gln	Leu	Ala	Val	
				215					220					225	
Cys	Leu	Lys	Tyr	Ala	Gly	Val	Phe	Ala	Glu	Asn	Ala	Glu	Asp	Ala	
				230					235					240	
Asp	Gly	Lys	Asp	Val	Phe	Asn	Thr	Lys	Ser	Val	Gly	Leu	Ser	Ile	
				245					250					255	
Lys	Glu	Ala	Met	Thr	Tyr	His	Pro	Asn	Gln	Val	Val	Glu	Gly	Cys	
				260					265					270	
Cys	Ser	Asp	Met	Ala	Val	Thr	Phe	Asn	Gly	Leu	Thr	Pro	Asn	Gln	
				275					280					285	
Met	His	Val	Met	Met	Tyr	Gly	Val	Tyr	Arg	Leu	Arg	Ala	Phe	Gly	
				290					295					300	
His	Ile	Phe	Asn	Asp	Ala	Leu	Val	Phe	Leu	Pro	Pro	Asn	Gly	Ser	
				305					310					315	
Asp	Asn	Asp													

<210> 342

<211> 23
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic Oligonucleotide Probe

 <400> 342
 tcccccaagcc gttctagacg cgg 23

 <210> 343
 <211> 18
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic Oligonucleotide Probe

 <400> 343
 ctggttcttc cttgcacg 18

 <210> 344
 <211> 28
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic Oligonucleotide Probe

 <400> 344
 gcccaaatgc cctaaggcgg tatacccc 28

 <210> 345
 <211> 50
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic Oligonucleotide Probe

 <400> 345
 ggggtgtgatg cttggaagca ttttctgtgc tttgatcact atgctaggac 50

 <210> 346
 <211> 25
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic Oligonucleotide Probe

 <400> 346
 gggatgcagg tggtgtctca tgggg 25

 <210> 347
 <211> 18
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic Oligonucleotide Probe

 <400> 347
 ccctcatgta ccggctcc 18

 <210> 348
 <211> 48
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic Oligonucleotide Probe

 <400> 348
 ggattctaata acgactcact atagggctca gaaaagcgca acagagaa 48

 <210> 349
 <211> 47
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic Oligonucleotide Probe

 <400> 349
 ctatgaaatt aaccctcact aaagggatgt cttccatgcc aaccttc 47
 <210> 350
 <211> 48
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic Oligonucleotide Probe

 <400> 350
 ggattctaata acgactcact atagggcggc gatgtccact ggggctac 48

 <210> 351
 <211> 48
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic Oligonucleotide Probe

 <400> 351
 ctatgaaatt aaccctcact aaagggacga ggaagatggg cggatggt 48

 <210> 352
 <211> 47
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic Oligonucleotide Probe

 <400> 352
 ggattctaata acgactcact atagggcacc cacgcgtccg gctgctt 47

<210> 353
 <211> 48
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic Oligonucleotide Probe

 <400> 353
 ctatgaaatt aaccctcact aaagggacgg gggacaccac ggaccaga 48

 <210> 354
 <211> 48
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic Oligonucleotide Probe

 <400> 354
 ggattctaatacgcactcact atagggccttg ctgcgggtttt tggctcctg 48

 <210> 355
 <211> 48
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic Oligonucleotide Probe

 <400> 355
 ctatgaaatt aaccctcact aaagggagct gccgatccca ctggtatt 48

 <210> 356
 <211> 46
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic Oligonucleotide Probe

 <400> 356
 ggattctaatacgcactcact atagggcgga tcctggccgg cctctg 46

 <210> 357
 <211> 48
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic Oligonucleotide Probe

 <400> 357
 ctatgaaatt aaccctcact aaagggagcc cgggcatggt ctctagtta 48

 <210> 358
 <211> 47
 <212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Oligonucleotide Probe

<400> 358

ggattctaatacgcactcactatagggcgaggatggcgaaggaggag 47

<210> 359

<211> 48

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Oligonucleotide Probe

<400> 359

ctatgaaattaacccctcactaaagggaccaaggccacaaa cggaaatc 48

<210> 360

<211> 48

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Oligonucleotide Probe

<400> 360

ggattctaatacgcactcactatagggctgtgctttcattctgccagta 48

<210> 361

<211> 48

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Oligonucleotide Probe

<400> 361

ctatgaaattaacccctcactaaagggagggtacaattaagggtggat 48

<210> 362

<211> 47

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Oligonucleotide Probe

<400> 362

ggattctaatacgcactcactatagggcccgctcgctcctgctcctg 47

<210> 363

<211> 48

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Oligonucleotide Probe

```
<210> 364
<211> 47
<212> DNA
<213> Artificial Sequence
```

```
<400> 364
ggattctaatacgcactcactatagggccccctctgccttcctgtcc 47
```

<220>
<223> Synthetic Oligonucleotide Probe

```
<210> 366
<211> 48
<212> DNA
<213> Artificial Sequence
```

```
<400> 366
ggatttctaatacgcactcactatagggcgca gcgatggcagcgatgagg 48
```

```
<210> 367
<211> 47
<212> DNA
<213> Artificial Sequence
```

<400> 367
ctatgaaatt aaccctcact aaagggacag acggggcaga gggagtg 47

```
<210> 368
<211> 47
<212> DNA
<213> Artificial Sequence
```

<400> 368
ggatttctaatt acgactcact ataggggccag gaggcgtgag gagaaac 47

<210> 369
 <211> 48
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic Oligonucleotide Probe

 <400> 369
 ctatgaaatt aaccctcact aaagggaaa acatgtcatc gggagtgg 48

 <210> 370
 <211> 48
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic Oligonucleotide Probe

 <400> 370
 ggattctaatac gactcact atagggccgg gtggaggtgg aacagaaa 48

 <210> 371
 <211> 48
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic Oligonucleotide Probe

 <400> 371
 ctatgaaatt aaccctcact aaaggacac agacagagcc ccatacgc 48

 <210> 372
 <211> 47
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic Oligonucleotide Probe

 <400> 372
 ggattctaatac gactcact atagggccag ggaaatccgg atgtctc 47
 <210> 373
 <211> 48
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic Oligonucleotide Probe

 <400> 373
 ctatgaaatt aaccctcact aaaggagta aggggatgcc accgagta 48

 <210> 374
 <211> 47
 <212> DNA
 <213> Artificial Sequence

<220>

<223> Synthetic Oligonucleotide Probe

<400> 374

ggattctaatac gactcact atagggccag ctacccgcag gaggagg 47

<210> 375

<211> 48

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Oligonucleotide Probe

<400> 375

ctatgaaatt aaccctcact aaagggatcc caggatgatga ggtccaga 48

<210> 376

<211> 997

<212> DNA

<213> Homo Sapien

<400> 376

cccacgcgtc cgatcttacc aacaaaacac tcctgaggag aaagaaagag 50
aggaggaggag agaaaaagag agagagagaa aaaaaaaacc aaagagagag 100
aaaaaatgaa ttcatctaaa tcatctgaaa cacaatgcac agagagagga 150
tgctttctctt cccaaatggtt cttatggact gttgctggga tccccatcct 200
atctctcagt gcctgtttca tcaccagatg tggtgtgaca tttcgcattct 250
ttcaaacctg tgatgagaaa aagtttcagc tacctgagaa tttcacagag 300
ctctcctgct acaattatgg atcagggttca gtcaagaatt gttgtccatt 350
gaactgggaa tattttcaat ccagctgcta cttcttttct actgacacca 400
tttctctgggc gttaagttta aagaactgct cagccatggg ggctcacctg 450
gtgggttatca actcacagga ggagcaggaa ttcctttcct acaagaaacc 500
taaaatgaga gagtttttta ttggactgtc agaccagggt gtcgagggtc 550
agtggcaatg ggtggacggc acacctttga caaagtctct gagcttcttg 600
gatgtagggg agcccaacaa catagctacc ctggaggact gtgccaccat 650
gagagactct tcaaacccaa ggcaaaattg gaatgatgta acctgtttcc 700
tcaattatct tcggatttgt gaaatggtag gaataaatcc tttgaacaaa 750
ggaaaatctc ttttaagaaca gaaggcacia ctcaaattgt taaagaagga 800
agagcaagaa catggccaca cccaccgccc cacacgagaa atttgtgcgc 850
tgaacttcaa aggacttcat aagtatttgt tactctgata caaataaaaa 900

taagtagttt .taaagtgttaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 950

aaaaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaa 997

<210> 377

<211> 219

<212> PRT

<213> Homo Sapien

<400> 377

Met	Asn	Ser	Ser	Lys	Ser	Ser	Glu	Thr	Gln	Cys	Thr	Glu	Arg	Gly
1				5					10					15

Cys	Phe	Ser	Ser	Gln	Met	Phe	Leu	Trp	Thr	Val	Ala	Gly	Ile	Pro
				20					25					30

Ile	Leu	Phe	Leu	Ser	Ala	Cys	Phe	Ile	Thr	Arg	Cys	Val	Val	Thr
				35					40					45

Phe	Arg	Ile	Phe	Gln	Thr	Cys	Asp	Glu	Lys	Lys	Phe	Gln	Leu	Pro
				50					55					60

Glu	Asn	Phe	Thr	Glu	Leu	Ser	Cys	Tyr	Asn	Tyr	Gly	Ser	Gly	Ser
				65					70					75

Val	Lys	Asn	Cys	Cys	Pro	Leu	Asn	Trp	Glu	Tyr	Phe	Gln	Ser	Ser
				80					85					90

Cys	Tyr	Phe	Phe	Ser	Thr	Asp	Thr	Ile	Ser	Trp	Ala	Leu	Ser	Leu
				95					100					105

Lys	Asn	Cys	Ser	Ala	Met	Gly	Ala	His	Leu	Val	Val	Ile	Asn	Ser
				110					115					120

Gln	Glu	Glu	Gln	Glu	Phe	Leu	Ser	Tyr	Lys	Lys	Pro	Lys	Met	Arg
				125					130					135

Glu	Phe	Phe	Ile	Gly	Leu	Ser	Asp	Gln	Val	Val	Glu	Gly	Gln	Trp
				140					145					150

Gln	Trp	Val	Asp	Gly	Thr	Pro	Leu	Thr	Lys	Ser	Leu	Ser	Phe	Trp
				155					160					165

Asp	Val	Gly	Glu	Pro	Asn	Asn	Ile	Ala	Thr	Leu	Glu	Asp	Cys	Ala
				170					175					180

Thr	Met	Arg	Asp	Ser	Ser	Asn	Pro	Arg	Gln	Asn	Trp	Asn	Asp	Val
				185					190					195

Thr	Cys	Phe	Leu	Asn	Tyr	Phe	Arg	Ile	Cys	Glu	Met	Val	Gly	Ile
				200					205					210

Asn	Pro	Leu	Asn	Lys	Gly	Lys	Ser	Leu						
				215										

<210> 378

<211> 21

<212> DNA

<213> Artificial Sequence

<220>
 <223> Synthetic Oligonucleotide Probe

 <400> 378
 ttcagcttct gggatgtagg g 21

 <210> 379
 <211> 24
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic Oligonucleotide Probe

 <400> 379
 tattcctacc atttcacaaa tccg 24

 <210> 380
 <211> 49
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 380
 ggaggactgt gccaccatga gagactcttc aaacccaagg caaaattgg 49

 <210> 381
 <211> 26
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 381
 gcagattttg aggacagcca cctcca 26

 <210> 382
 <211> 18
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 382
 ggccttgcag acaaccgt 18

 <210> 383
 <211> 21
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 383

cagactgagg gagatccgag a 21

<210> 384
 <211> 20
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 384
 cagctgccct tccccaacca 20

<210> 385
 <211> 18
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 385
 catcaagcgc ctctacca 18

<210> 386
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 386
 cacaaactcg aactgcttct g 21

<210> 387
 <211> 18
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 387
 gggccatcac agctccct 18

<210> 388
 <211> 22
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 388
 gggatgtggt gaacacagaa ca 22

<210> 389
 <211> 22

<212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 389
 tgccagctgc atgctgccag tt 22

 <210> 390
 <211> 20
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 390
 cagaaggatg tcccgtggaa 20

 <210> 391
 <211> 17
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 391
 gccgctgtcc actgcag 17

 <210> 392
 <211> 21
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 392
 gacggcatcc tcagggccac a 21

 <210> 393
 <211> 20
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 393
 atgtcctcca tgcccacgcg 20

 <210> 394
 <211> 20
 <212> DNA
 <213> Artificial Sequence

 <220>

<223> Synthetic oligonucleotide probe

<400> 394

gagtgcgaca tcgagagctt 20

<210> 395

<211> 18

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 395

ccgcagcctc agtgatga 18

<210> 396

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 396

gaagagcaca gctgcagatc c 21

<210> 397

<211> 22

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 397

gaggtgtcct ggctttggta gt 22

<210> 398

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 398

cctctggcgc cccactcaa 20

<210> 399

<211> 18

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 399

ccaggagagc tggcgatg 18

<210> 400
 <211> 23
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 400
 gcaaattcag ggctcactag aga 23

 <210> 401
 <211> 29
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 401
 cacagagcat ttgtccatca gcagttcag 29

 <210> 402
 <211> 22
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 402
 ggcagagact tccagtcact ga 22

 <210> 403
 <211> 22
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 403
 gccaaaggtg gtgtagata gg 22

 <210> 404
 <211> 24
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 404
 caggccccct tgatctgtac ccca 24

 <210> 405
 <211> 23
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

 <400> 405
 gggacgtgct tctacaagaa cag 23

 <210> 406
 <211> 26
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 406
 caggcttaca atgttatgat cagaca 26

 <210> 407
 <211> 31
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 407
 tattcagagt tttccattgg cagtgccagt t 31

 <210> 408
 <211> 21
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 408
 tctacatcag cctctctgcg c 21

 <210> 409
 <211> 23
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 409
 cgatcttctc caccaggag cgg 23

 <210> 410
 <211> 18
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

<400> 410
 gccaggcctc acattcgt 18

 <210> 411
 <211> 23
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 411
 ctccctgaat ggcagcctga gca 23

 <210> 412
 <211> 24
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 412
 aggtgtttat taaggccta cgct 24

 <210> 413
 <211> 19
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 413
 cagagcagag ggtgccttg 19

 <210> 414
 <211> 21
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 414
 tggcggagtc ccctcttggc t 21

 <210> 415
 <211> 22
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 415
 ccctgtttcc ctatgcatca ct 22

 <210> 416

<211> 21
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 416
 tcaacccctg accctttcct a 21

 <210> 417
 <211> 24
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 417
 ggcaggggac aagccatctc tcct 24
 <210> 418
 <211> 20
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 418
 gggactgaac tgccagcttc 20

 <210> 419
 <211> 22
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 419
 gggccctaac ctcattacct tt 22

 <210> 420
 <211> 23
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 420
 tgtctgcctc agccccagga agg 23

 <210> 421
 <211> 21
 <212> DNA
 <213> Artificial Sequence

 <220>

<223> Synthetic oligonucleotide probe

<400> 421

tctgtccacc atcttgcctt g 21

<210> 422

<211> 3554

<212> DNA

<213> Homo Sapien

<400> 422

gggactacaa gccgcgccgc gctgccgctg gcccctcagc aaccctcgac 50

atggcgctga ggcggccacc gcgactccgg ctctgcgctc ggctgcctga 100

cttcttctctg ctgctgcttt tcaggggctg cctgataggg gctgtaaatc 150

tcaaattccag caatcgaacc ccagtggtag aggaatttga aagtgtggaa 200

ctgtcttgca tcattacgga ttcgcagaca agtgacccca ggatcgagt 250

gaagaaaatt caagatgaac aaaccacata tgtgtttttt gacaacaaaa 300

ttcagggaga cttggcggtt cgtgcagaaa tactggggaa gacatccctg 350

aagatctgga atgtgacacg gagagactca gccctttatc gctgtgaggt 400

cggtgctcga aatgaccgca aggaaattga tgagattgtg atcgagttaa 450

ctgtgcaagt gaagccagt acccctgtct gtagagtgcc gaaggctgta 500

ccagtaggca agatggcaac actgcactgc caggagagtg agggccaccc 550

ccggcctcac tacagctggt atcgcaatga tgtaccactg cccacggatt 600

ccagagccaa tcccagattt cgcaattctt ctttccactt aaactctgaa 650

acaggcactt tgggtgttcac tgctgttcac aaggacgact ctgggcagta 700

ctactgcatt gcttccaatg acgcaggctc agccagggtg gaggagcagg 750

agatggaagt ctatgacctg aacattggcg gaattattgg gggggttctg 800

gttgtccttg ctgtactggc cctgatcacg ttgggcatct gctgtgcata 850

cagacgtggc tacttcatca acaataaaca ggatggagaa agttacaaga 900

accaggggaa accagatgga gttaactaca tccgcactga cgaggagggc 950

gacttcagac acaagtcacg gtttgtgatc tgagaccgcg ggtgtggctg 1000

agagcgcaca gagcgcacgt gcacatacct ctgctagaaa ctcctgtcaa 1050

ggcagcgaga gctgatgcac tcggacagag ctagacactc attcagaagc 1100

ttttcgtttt ggccaaagtt gaccactact cttcttactc taacaagcca 1150

catgaataga agaattttcc tcaagatgga cccggtaaat ataaccacaa 1200

ggaagcgaaa ctgggtgcgt tcactgagtt gggttcctaa tctgtttctg 1250

gcctgattcc cgcattgagta ttaggggtgat cttaaagagt ttgctcacgt 1300
 aaacgcccgt gctgggcccct gtgaagccag catgttcacc actggtcgtt 1350
 cagcagccac gacagcacca tgtgagatgg cgaggtggct ggacagcacc 1400
 agcagcgcatt cccggcgga acccagaaaa ggcttcttac acagcagcct 1450
 tacttcatcg gccacagac accaccgcag tttcttctta aaggctctgc 1500
 tgatcgggtg tgcagtgtcc attgtggaga agcttttttg atcagcattt 1550
 tgtaaaaaca accaaaatca ggaaggtaaa ttggttgctg gaagagggat 1600
 cttgcctgag gaaccctgct tgtccaacag ggtgtcagga ttttaaggaaa 1650
 accttcgtct taggctaagt ctgaaatggg actgaaatat gcttttctat 1700
 gggctctgtt tattttataa aattttacat ctaaattttt gctaaggatg 1750
 tattttgatt attgaaaaga aaatttctat ttaaactgta aatatattgt 1800
 catacaatgt taaataacct atttttttta aaaagttcaa cttaaggtag 1850
 aagttccaag ctactagtgt taaattggaa aatatcaata attaagagta 1900
 ttttacccaa ggaatcctct catggaagtt tactgtgatg ttccttttct 1950
 cacacaagtt ttagcctttt tcacaaggga actcatactg tctacacatc 2000
 agaccatagt tgcttaggaa acctttaaaa attccagtta agcaatgttg 2050
 aaatcagttt gcatctcttc aaaagaaacc tctcagggtta gctttgaact 2100
 gcctcttctt gagatgacta ggacagtctg taccagagg ccaccagaa 2150
 gccctcagat gtacatacac agatgccagt cagctcctgg ggttgcgcca 2200
 ggcgcccccg ctctagctca ctgttgctc gctgtctgcc aggaggccct 2250
 gccatccttg ggccctggca gtggctgtgt ccagtgagc tttactcacg 2300
 tggcccttgc ttcattccagc acagctctca ggtgggcact gcagggacac 2350
 tgggtgtctt catgtagcgt ccagctttg ggctcctgta acagacctct 2400
 ttttggttat ggatggctca caaaataggg cccccaatgc tatttttttt 2450
 ttttaagttt gtttaattat ttgttaagat tgtctaaggc caaaggcaat 2500
 tgcgaaatca agtctgtcaa gtacaataac attttttaaa gaaaatggat 2550
 cccactgttc ctcttttgca cagagaaagc acccagacgc cacaggctct 2600
 gtcgcatttc aaaacaaacc atgatggagt ggcggccagt ccagcctttt 2650
 aaagaacgtc aggtggagca gccaggtgaa aggcctggcg gggaggaaaag 2700
 tgaaacgcct gaatcaaaag cagttttcta attttgactt taaatttttc 2750

atccgccgga gacactgctc ccatttgtgg ggggacatta gcaacatcac 2800
 tcagaagcct gtgttcttca agagcaggtg ttctcagcct cacatgccct 2850
 gccgtgctgg actcaggact gaagtgtgt aaagcaagga gctgctgaga 2900
 aggagcactc cactgtgtgc ctggagaatg gctctcacta ctcaccttgt 2950
 ctttcagctt ccagtgtctt gggtttttta tactttgaca gctttttttt 3000
 aattgcatac atgagactgt gttgactttt tttagttatg tgaaacactt 3050
 tgccgcaggc cgcttggcag aggcaggaaa tgctccagca gtggctcagt 3100
 gctccctggg gtctgtgtga tggcatcctg gatgcttagc atgcaagttc 3150
 cctccatcat tgccaccttg gtagagaggg atggctcccc accctcagcg 3200
 ttggggattc acgctccagc ctccttcttg gttgtcatag tgatagggtta 3250
 gccttattgc cccctcttct tataccctaa aaccttctac actagtgccca 3300
 tgggaaccag gtctgaaaaa gtagagagaa gtgaaagtag agtctgggaa 3350
 gtagctgcct ataactgaga ctagacggaa aaggaatact cgtgtatttt 3400
 aagatatgaa tgtgactcaa gactcgaggc cgatacgagg ctgtgattct 3450
 gcctttggat ggatgttgct gtacacagat gctacagact tgtactaaca 3500
 caccgtaatt tggcatttgt ttaacctcat ttataaaagc ttcaaaaaaa 3550
 ccca 3554

<210> 423
 <211> 310
 <212> PRT
 <213> Homo Sapien

<400> 423
 Met Ala Leu Arg Arg Pro Pro Arg Leu Arg Leu Cys Ala Arg Leu
 1 5 10 15
 Pro Asp Phe Phe Leu Leu Leu Leu Phe Arg Gly Cys Leu Ile Gly
 20 25 30
 Ala Val Asn Leu Lys Ser Ser Asn Arg Thr Pro Val Val Gln Glu
 35 40 45
 Phe Glu Ser Val Glu Leu Ser Cys Ile Ile Thr Asp Ser Gln Thr
 50 55 60
 Ser Asp Pro Arg Ile Glu Trp Lys Lys Ile Gln Asp Glu Gln Thr
 65 70 75
 Thr Tyr Val Phe Phe Asp Asn Lys Ile Gln Gly Asp Leu Ala Gly
 80 85 90
 Arg Ala Glu Ile Leu Gly Lys Thr Ser Leu Lys Ile Trp Asn Val

	95	100	105
Thr Arg Arg Asp Ser Ala Leu Tyr Arg Cys Glu Val Val Ala Arg	110	115	120
Asn Asp Arg Lys Glu Ile Asp Glu Ile Val Ile Glu Leu Thr Val	125	130	135
Gln Val Lys Pro Val Thr Pro Val Cys Arg Val Pro Lys Ala Val	140	145	150
Pro Val Gly Lys Met Ala Thr Leu His Cys Gln Glu Ser Glu Gly	155	160	165
His Pro Arg Pro His Tyr Ser Trp Tyr Arg Asn Asp Val Pro Leu	170	175	180
Pro Thr Asp Ser Arg Ala Asn Pro Arg Phe Arg Asn Ser Ser Phe	185	190	195
His Leu Asn Ser Glu Thr Gly Thr Leu Val Phe Thr Ala Val His	200	205	210
Lys Asp Asp Ser Gly Gln Tyr Tyr Cys Ile Ala Ser Asn Asp Ala	215	220	225
Gly Ser Ala Arg Cys Glu Glu Gln Glu Met Glu Val Tyr Asp Leu	230	235	240
Asn Ile Gly Gly Ile Ile Gly Gly Val Leu Val Val Leu Ala Val	245	250	255
Leu Ala Leu Ile Thr Leu Gly Ile Cys Cys Ala Tyr Arg Arg Gly	260	265	270
Tyr Phe Ile Asn Asn Lys Gln Asp Gly Glu Ser Tyr Lys Asn Pro	275	280	285
Gly Lys Pro Asp Gly Val Asn Tyr Ile Arg Thr Asp Glu Glu Gly	290	295	300
Asp Phe Arg His Lys Ser Ser Phe Val Ile	305	310	